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**BULLETIN**  
*School of Medicine*  
*University of Maryland*

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# BULLETIN *School of Medicine* *University of Maryland*

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## Editorial

### **The New Molecular Pathology**

THE SUCCESS of heavy financial support for the development of the atomic bomb from the basic principle of nuclear fission led to the present optimistic support of medical research by governmental agencies in the hope of conquering a number of our major diseases. Such a course has given rise to much controversy among scientists quieted by the general and particular benefits derived from the program. For example, granting agencies for a number of years have financed many basic projects in the name of cancer research some of which at best had only the remotest connection with the disease. Yet, recent work is beginning to reveal the great wisdom of such broad vision.

The increasing use of finer tools of research more and more are leading to a study of the molecular structure and function of cells. Cells, after all, are the fundamental units comprising life and afflicted by disease. Thus, it should come as no surprise that deeply probing studies in many different fields of entirely unrelated diseases seem to converge upon basic molecular studies of the cell, its normal and altered metabolism, growth, function, and reproduction.

Life reduced to its minimal molecular form is composed of nucleoprotein as found in viruses, but nucleoprotein comprises the key heritable substance of all living cells and more than any other component regulates their growth and activity. Hence, perhaps the greatest promise of understanding life, the cell and its diseases revolves around our increasing knowledge of this "living" substance. Particularly is this true for conditions in which cells are altered and transmit the newly acquired alteration to their daughter cells. Such conditions range from cancer with its disturbed cellular inheritance to semi-physiological antibody-producing cells in infections and allergic conditions. It is no accident that the old somatic mutation theory of cancer in more recent years has been joined by a similar theory by Nobel prize winning Burnet for antibody formation.<sup>1</sup>

A recent study published from the Department of Pathology of the University of Maryland describes a mechanism by which a variety of agents can effect similar changes in cellular inheritance and thus produce cancer.<sup>2</sup> Geneticists used to scorn the concept of somatic mutation as one that could never be proved because only germinal cells could be cross fertilized, back crossed, etc. to allow genetic analysis. Now, however, with the development of chromosome analyses actual reproducible

chromosome aberrations are detectable and several observers have recently reported an abnormal autosome number 21 in myeloid leukemia.

We are witnessing an amazing evolution in the study of disease from the tissue and cellular level to a subcellular and molecular level. The advances that have been made since World War II in large part are due to the sometimes questioned but basically wise investment our Government and other granting agencies are making in medical research. Many surprises are in store and previously seemingly impenetrable walls are doomed to be breached by the formidable onslaught of new weapons and an army of skilled tacticians in the research laboratories.

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#### References

1. BURNET, F. MACFARLANE: *Enzyme Antigen and Virus. A Study of Macromolecular Pattern in Action*, Cambridge University Press, London, 1956.
2. FIRMINGER, H. L. and REUBER, M. D.: Influence of Adrenocortical, Androgenic and Anabolic Hormones on the Development of Carcinoma and Cirrhosis of the Liver in A X C Rats Fed N-2-Fluorenyldiacetamide, *J. Nat. Cancer Inst.*, 27:559, 1961.



# Massive Gastrointestinal Hemorrhage in the Upper Age Groups\*

R. M. CUNNINGHAM, M.D.

THIS PAPER is a review of 100 unselected patients 60 years of age or over who were hospitalized during the period 1949-1958\* for severe or massive bleeding from the G. I. tract. The term massive as used here indicates those patients who either a) had a hemoglobin of 50% or less on admission to the hospital or subsequent to admission and before full replacement of blood was achieved, or b) regardless of hemoglobin level, who had bleeding severe enough to produce shock and require 1500 cc. or more of blood to restore blood pressure and hemoglobin levels to normal or near normal.

Each year the number of patients who are 60 years of age or over who require hospitalization increases. The Maryland Medical Service (Blue Cross) reports that of their subscribers in this age group, 2.1% required hospital admission in 1948, while 8.6% were hospitalized in 1957.<sup>1</sup> A study by the Health Information Foundation of New York (a nationwide survey) for the year 1953 showed 18% of hospital populations were age 65 or over.<sup>2</sup>

In this series of 100 patients, the mortality for each decade from 60 to 90 was 31%, 30%, and 33% respectively (Fig. 1). Comparison is made with the mortality figures reported by Welch<sup>3</sup> in 269 cases of severe G. I. bleeding over five

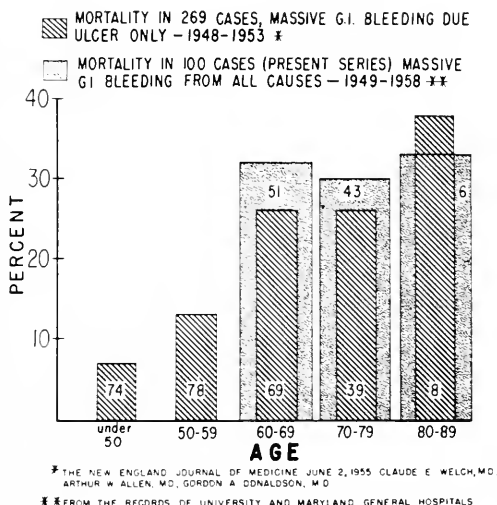


Fig. 1

decades for patients with peptic ulcer only. Whereas their mortality was 7% for patients under 50 years of age, 13% for patients age 50 to 59, it approached 30% for patients in the two decades age 60 to 79 and was nearly 40% in the few patients (eight) in the age groups 80-89. Their overall mortality for all ages (bleeding peptic ulcer patients only) was 17%. This is in close agreement with the mortality figures of Karlson *et al.*,<sup>4</sup> who report 14% mortality for severe G. I. bleeding exclusive of esophageal varices in 130 patients of all age groups.

When one considers all the causes for massive G. I. bleeding in the upper age groups, particularly in those patients with cirrhosis of the liver and with esophageal varices, it is not surprising that the mortality figures are considerably larger than in those reports which do

\* From the Department of Surgery, School of Medicine, University of Maryland, Baltimore, Maryland.

From the Medical Records Department of the University Hospital (71 cases) and Maryland General Hospital (29 cases).

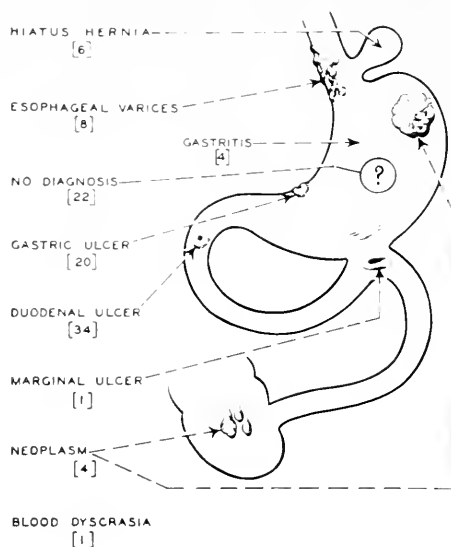


Fig. 2

not include these patients—or whose figures include the earlier decades from age 20 to 50. Thus, selectivity can sharply alter mortality statistics.

#### Peptic Ulcer

The site of bleeding in this series is shown schematically in Fig. 2. Peptic ulcer accounted for 54% of our patients. Duodenal ulcer occurred in 34. There were 26 male and eight female patients.

Twenty-one of these patients were treated medically and 17 were discharged improved. Four deaths occurred following this non-operative management—three of uncontrolled hemorrhage and one of pneumonitis from aspiration.

Thirteen patients with duodenal ulcer were treated by operation, 11 by subtotal gastrectomy and one by gastro-enterostomy. One died prior to laparotomy while under anesthesia and is included in the surgical deaths. Five patients died following operation—one of cardiac arrest during bronchoscopic aspiration following gastrectomy; two of uncontrolled bleeding (one following gastrectomy and one after gastro-enterostomy); one of

DUODENAL ULCER-34	
MALE-26, FEMALE-8	
MORTALITY-29%	
<hr/>	
MEDICAL=21	
IMPROVED-17	
DIED-4	UNCONTROLLED BLEEDING-3
	ASPIRATION-1
<hr/>	
SURGICAL=13	
IMPROVED-7	
DIED-6	CARDIAC ARRESTS-2 (Pre Op-1, Post Op-1)
	UNCONTROLLED BLEEDING-2
	PERITONITIS-1
	PULMONARY EMBOLISM-1

Fig. 3

peritonitis from disruption of the duodenal stump following gastrectomy, and one of pulmonary embolism 15 days after gastrectomy. Seven of the 13 surgical patients were discharged improved following gastrectomy (Fig. 3). Of the six surgical fatalities, analysis reveals that all but one patient was managed entirely on the surgical service.

In the two surgical patients in whom uncontrolled bleeding was the cause of death, the bleeding vessel was not transfixed nor was the ulcer removed. The unremoved ulcer in the duodenal stump may have contributed to nonhealing in the patient who developed peritonitis.

Thus, of the 10 deaths in 34 duodenal ulcer patients, the overall mortality rate was 29%, the surgical mortality 46%, and the medical mortality was 19%.

Gastric ulcer was diagnosed in 20 patients. There were 13 male and seven female patients. Seven were treated non-operatively and six were discharged improved. The one medical death was due to uncontrolled bleeding. Thirteen patients were treated by operation and 10

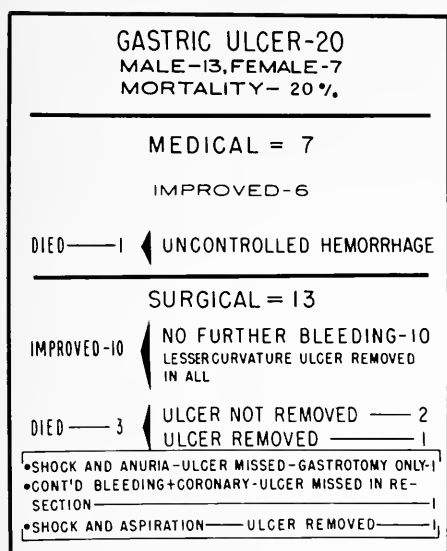


Fig. 4

were discharged improved with no further bleeding (Fig. 4). All 10 patients had ulcers on the lesser curvature as found in the resected stomach. Three patients died following operation. One suffered uncontrolled shock and aspiration of stomach contents during gastrectomy. The surgical specimen contained two ulcers on the lesser curvature. One patient died of continued bleeding from a second ulcer high in the lesser curvature of the stomach (shown at autopsy) as well as from a recent myocardial infarction. This patient also had an ulcer removed which was on the distal part of the lesser curvature. The third death was from shock of continued bleeding and anuria. This patient's ulcer was undetected at operation and gastrectomy was not carried out. A prepyloric ulcer was found at necropsy.

There were four deaths in 20 gastric ulcer patients, a mortality of 20%. Two of the deaths following operation were due to bleeding from uncontrolled gastric ulcers.

Peptic ulcer accounted for 54% of

AGE	DUODENAL ULCER	
	MEDICAL	SURGICAL
60-69 (20)	10 IMPROVED 1 DIED	4 IMPROVED 5 DIED (2 CARDIAC ARRESTS)
70-79 (12)	6 IMPROVED 2 DIED	3 IMPROVED 1 DIED
80-89 (2)	1 IMPROVED 1 DIED	
	GASTRIC ULCER	
	MEDICAL	SURGICAL
60-69 (12)	3 IMPROVED 1 DIED	6 IMPROVED 2 DIED
70-79 (8)	3 IMPROVED 0 DIED	4 IMPROVED 1 DIED
80-89 (0)		

Fig. 5

the patients admitted for massive gastrointestinal bleeding in this series and the overall mortality rate was 25%. The breakdown by age groups, for duodenal and gastric ulcer, is shown in Fig. 5.

#### Esophageal Varices

Eight patients had a clinical diagnosis of cirrhosis of the liver with massive bleeding due most probably to esophageal varices. All of these patients died. Five patients were in the 60-69 decade and three were in the 70-79 decade. X-ray confirmation of this diagnosis was obtained in two patients only. X-ray studies were done on two additional patients but these failed to show esophageal varices. Seven of the eight patients had a liver that was palpably enlarged and firm. Six patients had liver function studies which were abnormal. In the one patient without hepatomegaly, the needle biopsy of the liver showed cirrhosis.

Six of these eight patients died in hepatic coma during a hospital stay of from 27 hours to 25 days. One patient died of exsanguination on the second hospital day. One patient treated by operation in which gastrotomy, ligation

**HIATUS HERNIA-6**  
**MALE-1 FEMALE-5**  
**MORTALITY —0**

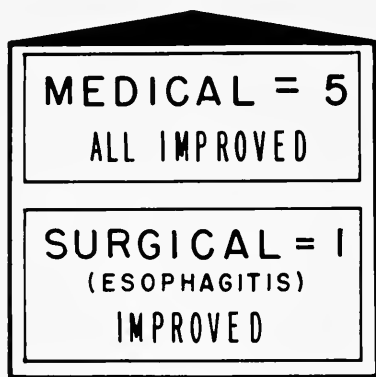


Fig. 6

of suspected bleeding point, and biopsy of the liver were done, died of post-operative shock and aspiration. The liver biopsy in this patient showed cirrhosis of the Laennec type.

Though the diagnosis of cirrhosis of the liver with hemorrhage from esophageal varices was proven in only the one patient undergoing operation, this was the clinical diagnosis upon which treatment was based. The study of Enquist and Gliedman<sup>5</sup> on 476 cirrhotic patients revealed that about one-third of cirrhotic patients with massive G. I. hemorrhage had bleeding from sources other than varices. In the group reported here, no evidence is forthcoming that bleeding was from a source other than that stated. It is likely that this clinical diagnosis influenced greatly the treatment measures instituted.

#### Hiatus Hernia

Hiatus hernia as the only likely cause of bleeding was encountered in six patients. One patient was male and five were female (Fig. 6). Two patients were in the 60-69 age group and four were age 70-79. All were diagnosed by x-ray

**NEOPLASM-4**  
**MALE-1, FEMALE-3**  
**MORTALITY-50%.**

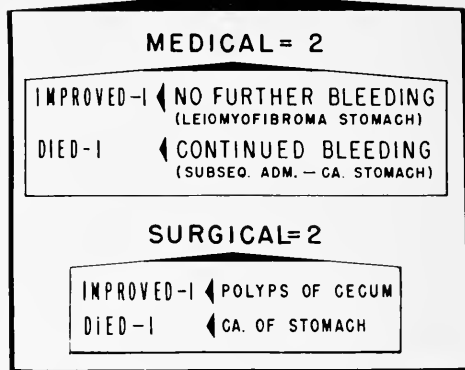


Fig. 7

studies. Two patients also had x-ray evidence of esophagitis and one patient showed x-ray evidence of an ulcer in the herniated portion of the stomach. Two of these hernias were characterized as large hernias (5-7 cm.). Of the two patients with x-ray evidence of esophagitis, one had the diagnosis confirmed by esophagoscopy with biopsy and the other had resection by operation—this one patient, age 75, was the only one in this group treated surgically.

All six patients were discharged improved with no evidence of further bleeding. Three other patients in this group of 100 cases were known to have a hiatus hernia in association with a peptic ulcer of the duodenum—the more likely cause of their G. I. bleeding—hence treatment was directed at that finding.

#### Gastritis

Gastritis as the sole explainable lesion responsible for massive bleeding was found in four patients. Two patients were in the 70-79 age group and two were in the 80-89 age group. This diagnosis was confirmed by gastroscopy with biopsy in three patients and by x-ray evidence alone in one.

These four patients were treated without operation and all were discharged improved. Three of the four were recurrent bleeders, one having had a partial gastrectomy 28 years previously. There was no x-ray evidence of gastritis or stomal ulcer but a biopsy by gastroscopy showed gastritis.

#### Neoplasm

Neoplasm caused massive bleeding in four patients (Fig. 7). One patient was in the 60-69 age group, two were in the 70-79 decade, and one was in the 80-89 age group. One man aged 63 years had a benign appearing tumor of the stomach upon x-ray examination, probably a leiomyoma, but he refused operation and was discharged improved after transfusion. Three patients were female; two had carcinoma of the stomach, one proven by laparotomy, the other was proven in a patient who was not operated upon and whose lesion was undiagnosed before death. The third patient aged 81 years had two benign polyps of the cecum, removed successfully by cecotomy.

The mortality rate in this small group was 50%.

#### Marginal Ulcer

Marginal ulcer was the cause of massive bleeding in a 72-year-old male who had a gastro-enterostomy in 1937 at the age of 55 years. He had had six subsequent admissions to the hospital for severe G. I. bleeding between 1946 and 1954. A subtotal gastrectomy was done in 1952. In 1954 he underwent resection of the marginal ulcer. He was discharged improved and has remained well to date.

#### Blood Dyscrasia

One patient, a 60-year-old white woman, was admitted to the hospital for hematemesis and melena with a nine-year history of splenomegaly and anemia requiring several prior admissions. Liver function studies were within normal

limits and roentgen studies of the G. I. tract were normal. On the last admission, in 1956, this patient died following splenectomy. At autopsy examination, no G. I. lesion was found to account for the bleeding. The pathological report on the spleen revealed myeloid metaplasia.

#### No Diagnosis Group

Twenty-two patients in this study had no definite or probable diagnosis made as a cause or source of their gastrointestinal bleeding. There were six deaths, a mortality of 27% (Fig. 8). Sixteen patients were treated nonoperatively with five fatalities, while six were treated by operation with one death. Two autopsy examinations on patients who failed to survive their non-surgical treatment did not reveal the source of their bleeding.

On a survey of the six patients upon whom operation was done, gastrotomy was performed in four, and duodenotomy in one, with negative findings. The sixth patient was explored surgically but without opening any part of the G. I. tract. Two of these six patients were readmitted with carcinoma of the colon, one month and 17 months later. No other G. I. lesion was found at the time of resection of their colons.

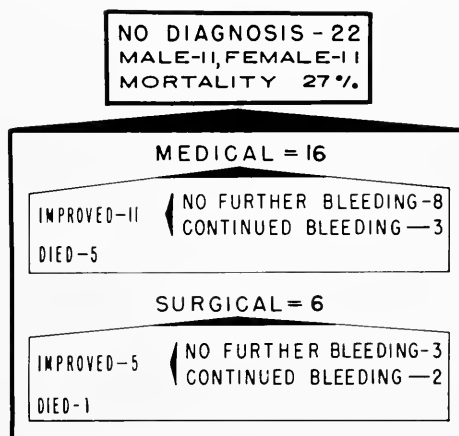


Fig. 8

NO DIAGNOSIS-22; MORTALITY-27%			
	AGE GROUPS & NUMBERS		
	60-69 (10)	70-79 (11)	80-89 (11)
LIVER FUNCTION	1	0	0
STOMACH TUBE	2	1	0
G I SERIES	8	5 (1 P.O.)	0
BARIUM ENEMA	4	3	0
ESOPHAGOSCOPY	1	0	0
GASTROSCOPY	0	0	0
PROCTOSCOPY	2	0	0
STOOL EXAM	3	5	1
MEDICAL (16 Cases)	7 TREATED 1 DEATH PM NEG	8 TREATED 3 DEATHS 1 PM NEG	1 TREATED 1 DEATH NO PM
DEATHS (5)			
SURGICAL (6 Cases)	3 TREATED 0 DEATHS 1 READMIT WITH CA COLON	3 TREATED 1 DEATH NO PM 1 READMIT WITH CA COLON	0
DEATHS (1)			
GASTROTOMY	1	3	0
DUODENOTOMY	0	1	0
COLO TOMY	0	0	0

Fig. 9

Thirteen patients in this group had hematemesis and melena; nine had melena only. Fig. 9 is a résumé of the diagnostic procedures done on these patients. Obviously it would have been helpful to have had more complete studies, particularly endoscopy of the upper G. I. tract.

### Discussion

Much has been said and written on the subject of gastrointestinal bleeding where the bleeding site is unknown. "Blind" gastric resection has been advocated, particularly in those patients past 50 years of age. Conservative medical management has its equally strong advocates. The pinpointing of a definite or probable diagnosis demands cooperative team management involving Gastroenterologist or Internist, Surgeon and Roentgenologist, as well as the clinical laboratory. Successful treatment, based on a prompt diagnosis, involves also the efficient blood bank as well as the Anesthesiologist.

It is suggested that once vigorous shock therapy is under way, certain definite and coordinated steps be taken.

1. It is permissible to assume that every patient suffering massive gastro-

intestinal hemorrhage has a peptic ulcer, duodenal or gastric, until proven otherwise.

2. Regardless of whether or not there is a history of or physical signs of liver disease, and in the absence of a known bleeding source, a Sengstaken-Blakemore type of tube may be passed promptly—or if not available, a large stomach tube may be used—to determine whether or not the patient is bleeding from the upper G. I. tract. This is the only prompt way to determine whether or not there is continued bleeding, the rate of blood loss, and recurrence of bleeding. This can be done in the Emergency Room or immediately upon arrival in the room or ward.

3. Since a liver function test (B. S. P.) can be done in about 30 minutes, this procedure may serve to screen the liver as healthy or diseased, and may help exclude bleeding from varices of the esophagus in the patient with upper G. I. tract hemorrhage. If liver disease is evident from the history and physical examination, the probability of cirrhosis with varices may be considered likely and esophageal tamponade may then be instituted with the tube (Sengstaken-Blakemore) until bleeding is controlled.

4. Once the patient has become stabilized and the bleeding site not yet apparent, endoscopy is in order—before any lengthy x-ray studies are carried out. If the diagnosis is not made upon esophagoscopy or gastroscopy, then prompt radiological diagnosis must be sought—preferably within the first 24 hours if the patient's condition permits. It has been demonstrated repeatedly by Radiologists that early Barium studies of the upper G. I. tract in patients with bleeding are safe and reliable, and give a correct diagnosis in a high percentage of instances.<sup>6</sup>

5. Proctoscopy and barium enema

studies should not be overlooked, especially for those patients who have not had hematemesis and who, therefore, may have their lesions below the ligament of Treitz. It is not unusual, however, for patients who have actively bleeding peptic ulcers to have only melena, without hematemesis—as did 28% of the patients in this series with proven peptic ulcers.

6. There will always be a small and irreducible number of patients in whom surgical exploration will be necessary for diagnosis.

### Summary

A study of 100 patients aged 60 years or over, with massive bleeding in the gastrointestinal tract, has been presented, with a mortality in each decade of approximately 30%.

Fifty-four percent of the patients herein presented had bleeding from gastric or duodenal ulcers.

The number of patients without definite or probable diagnosis should be small and if, after complete, careful, and repeated studies, the diagnosis is still in doubt, then thorough surgical exploration should further reduce this number to a very low figure.

A plea is made for prompt, orderly, coordinated, and vigorous team management, particularly in the upper age group whose margin of reserve is so narrow and whose numbers will continue to increase in our hospitals year by year.

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### References

1. DABNEY, R. H., Director, Maryland Hospital Service, Inc.: Personal Communication, February 4, 1959.
2. ANDERSON, O. W. and FELDMAN, J. J.: *Family Medical Costs and Voluntary Health Insurance, A Nationwide Survey*, 1956, McGraw-Hill Publishing Co.
3. WELCH, C. E., ALLEN, A. W., and DONALDSON, G. A.: Surgical Management of Massive Acute Upper Gastrointestinal Hemorrhage, *New England J. Med.*, 252:921, 1955.
4. KARLSON, K. E., ENQUIST, I. F., DENNIS, C., and FIERST, S.: Results of Three Methods of Therapy for Massive Gastroduodenal Hemorrhage, *Ann Surg.*, 148:594, 1958.
5. ENQUIST, I. F. and GLIEDMAN, M. L.: Sources of Upper Gastrointestinal Bleeding in Patients with Cirrhosis, *Surg. Gynec. & Obst.*, 106:153, 1958.
6. SCHATZKI, S. C. and BLADE, W. R.: Emergency X-ray Examination in the Diagnosis of Severe Upper Gastrointestinal Bleeding, *New England J. Med.*, 259:897, 1958.

# Psychogalvanic Skin Response as a Method of Objective Olfactometry

STEVEN J. BORSANYI, M.D., CYRUS L. BLANCHARD, M.D., FRED J. BAKER, B.S.\*

THE HISTORY of olfactometry dates back more than a hundred years. A great number of quantitative and qualitative devices and techniques have been tried in an effort to determine man's ability to smell. An excellent review was published by Wenzel<sup>1</sup> in 1948, but most of these methods lack a very important fact in the testing of any sensory apparatus: objectivity.

The sense of smell in man is not as important as it is in some animals. However, a few occupations demand good olfactory function and the total loss of smell might force someone to change his occupation.

In the past not much attention had been paid to the medico-legal aspect of anosmia. There are no generally accepted testing methods to tell if a person is anosmic. Because of the growing number of industrial compensation cases, an objective olfactometric procedure is highly desirable. The psychogalvanic skin response olfactometry hereinafter referred to as PGSR seems to fulfill this requirement.

Our study includes 30 patients selected from the Out-Patient Ear, Nose, and Throat Clinic whose olfaction was studied by the PGSR olfactometric method. A brief description of the technique is as follows: Every patient first has a complete ENT history and examination. Then they are introduced to the



Fig. 1. The patient is ready for the test.

apparatus. Every effort is made to put them at ease, since the general mental attitude is an important factor in any PGSR testing. The PGSR recording leads are attached to the second and fourth fingers and the ground wire is attached to the same arm. The earphones and blindfolds are then put on the subject to eliminate extraneous stimuli. This is followed with the calibration of the electrical recording equipment and after the insertion of the nasal catheters from the apparatus containing the stimulating odor, the subject is ready for the test. (Fig. 1.)

Out of the 30 patients, 15 had no nasal pathology and 14 of them had a positive PGSR. One tracing could not be interpreted. The remaining 15 patients had different nasal pathologies such as allergic rhinitis, nasal polypsis, chronic sinusitis, etc. and the PGSR responses were in line with what was expected from the diagnosis.

Division of Otolaryngology, University Hospital, School of Medicine, University of Maryland.

\* Summer Fellow supported by a Hitchcock summer fellowship.



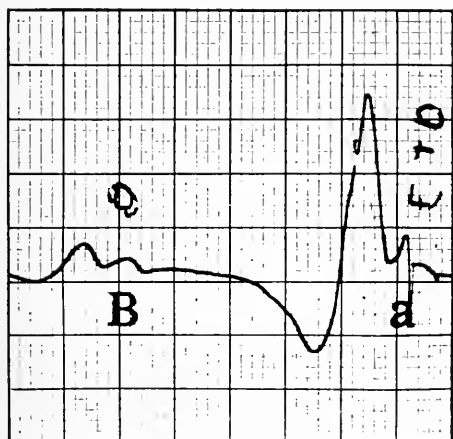


Fig. 2. Positive tracing.

Two cases of malingerers merit special attention. Both of these patients insisted they could not smell. One of them had been under psychiatric treatment. Positive PGSR tracings were obtained and when these tracings were shown and explained to them, they admitted that they could smell.

The next figure shows a positive tracing. (Fig. 2.)

"A" represents the conditioning responses obtained by giving the electrical and olfactory stimulus simultaneously. "B" is the PGSR curve which resulted from the olfactory stimulus alone, indicating a positive response.

If the subject being tested is a true anosmic, the PGSR curve is missing from the tracing when the olfactory stimulus is presented alone. (Fig. 3.) "A" represents the conditioning stimulus (olfactory and electrical). "B" shows no response to olfactory stimulus alone, indicating a negative PGSR response.

The interpretation of the results of PGSR olfactometry are somewhat controversial. One of the requirements of this method of olfactometry is a stimulating apparatus which fulfills certain criteria, such as the volume and pressure

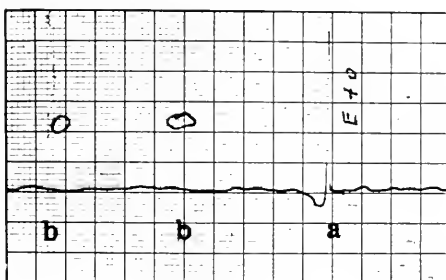


Fig. 3. Negative tracing.

of the air and the odor carried to the olfactory cells should be exactly controlled and measured, the stimulator should confine its stimulus odor within itself and be free of contamination by other odors, etc. The modification of the Elsburg<sup>2</sup> blast device satisfies all of these criteria.

The proper choice of the stimulating odorant is also very important. Many odors, like the harsh odors of camphor, phenol, chloroform, etc., stimulate not only the olfactory receptors but also the trigeminal sensory endings and the taste receptors.<sup>3</sup> In our experiment we used oil of cloves, which is a pure olfactory stimulant, and its action can be abolished by section of the olfactory nerve.

*Conclusion:* The preliminary data obtained from our experiments indicate that psychogalvanic skin response olfactometry is an objective method in evaluating someone's ability to smell. No effort was made to investigate thresholds of smell with the PGSR olfactometry, but it is felt that with the refinement of the technique that it is worthy of a try. We were primarily interested in to what extent the PGSR olfactometry is objective in evaluating the peripheral smell apparatus. The use of this method was especially useful in detecting malingering, which we feel is important, considering the medico-legal aspects of olfactometry.

Con't on p. 13

# Myasthenia Gravis: An Auto-Immune Mechanism?

KERMIT E. OSSERMAN, M.D., F.A.C.P.

THE ETIOLOGY of myasthenia gravis is still unknown. For the past quarter of a century attention has centered on the neuromuscular junction, and considerable knowledge of the activity, structure, and function of this apparatus has accumulated through electrophysiologic, histochemical and electronmicroscopic studies.<sup>1</sup> The defect at the neuromuscular junction is now postulated to be one of three: 1) diminished acetylcholine production; 2) increased cholinesterase activity at the neuromuscular end-plate; and 3) a dual theory dealing with alteration of the end-plate properties.<sup>2</sup>

Certain clinical observations and laboratory experiments have recently opened the vista to a newer hypothesis of the etiology of the myasthenic syndrome. Historically, Walker observed that ptosis could be induced in a myasthenic patient by releasing the blood in an extremity which had been occluded by a tourniquet during a period of exercise. Wilson and Stoner withdrew blood from such an extremity after exercise and found diminution of the twitch tension of a nerve muscle preparation bathed in the serum so collected. Further evidence to substantiate the concept of a circulating curare-like moiety was reported in 1942, when a baby born of a myasthenic mother was found to have a transient form of the disease for the first few weeks of its life. Transient neonatal myasthenia is now reported as occurring in approxi-

mately 20% of babies born of myasthenic mothers.

In the past few years investigators have increased our knowledge of what this circulating moiety might be. In repeating Wilson and Stoner's experiment, which could only be partially confirmed, it was shown that the "positive" sera caused necrosis of the sarcolemma of the bathed muscle.<sup>3</sup> This was postulated as being due to blood complement. Therefore, complement was studied in a group of myasthenic patients with equivocal results: the blood complement level could be within the normal range or markedly decreased or increased. It was only when serial studies of the blood complement levels of myasthenic patients were made that some understanding of the observed range of values began to take form. In patients with long standing, static, chronic myasthenia, even with severe manifestations, the blood complement levels were within normal limits. At the onset of myasthenia (within two years) or when an exacerbation occurred, the blood complement levels were almost uniformly decreased, with a rebound to above normal levels upon clinical improvement of the patient.<sup>4</sup> Following this lead, and having in mind the possibility that the complement was depleted in an immune antigen antibody reaction, pooled and single myasthenic sera were studied by tagging their serum globulin fractions with fluorescein isothiocyanate. Such fluorescein-tagged myasthenic globulin regularly localized in alternate striations of both normal and myasthenic human

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skeletal muscle, as well as in skeletal muscle of other mammalian species. This suggests that the staining property resides in the abnormal serum rather than in the muscle,<sup>5</sup> and that myasthenia may represent a peculiar form of auto-immune restricted myositis. This concept may explain the partial reversal of resistance to standard drug therapy through the use of corticosteroid therapy and/or complete rest including withdrawal of all anticholinesterase medication, in the myasthenic patient who has reached an end-stage (unresponsive to specific drugs). The results with this form of therapy may represent the exhaustion of such an antibody mechanism. Simpson<sup>6</sup> has noted that some myasthenic patients have arthropathies and other systemic allergic manifestations in association with their myasthenia. This clinical observation led to his hypothesis that myasthenia gravis may be an auto-immune response of muscle in which an antibody to end-plate protein may be formed, with the properties of an acetylcholine-competitive-blocking substance, specific to the individual and occasionally to the fetus of a myasthenic mother. The reticuloendothelial system, specifically the thymus, may react to muscle end-plate protein as if it were "foreign" in disorders of the thymus.

In studying the natural life history of myasthenia gravis, certain clinical facts have accumulated which are not explicable by a simple theory of "neuromuscular block." Among these facts are the

influence of infection and emotion on the course of the disease; bizarre transient neurologic findings; why certain muscles are involved and others are not; and the waxing and waning of symptomatology.

The newly advanced hypothesis of the etiology of myasthenia gravis, that of an auto-immune mechanism, has given us a fresh point of view for future investigations. Finer protein partition and performance of more precise protein analysis by immunohistochemical methods may solve the riddle of the etiology of myasthenia gravis.

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# References

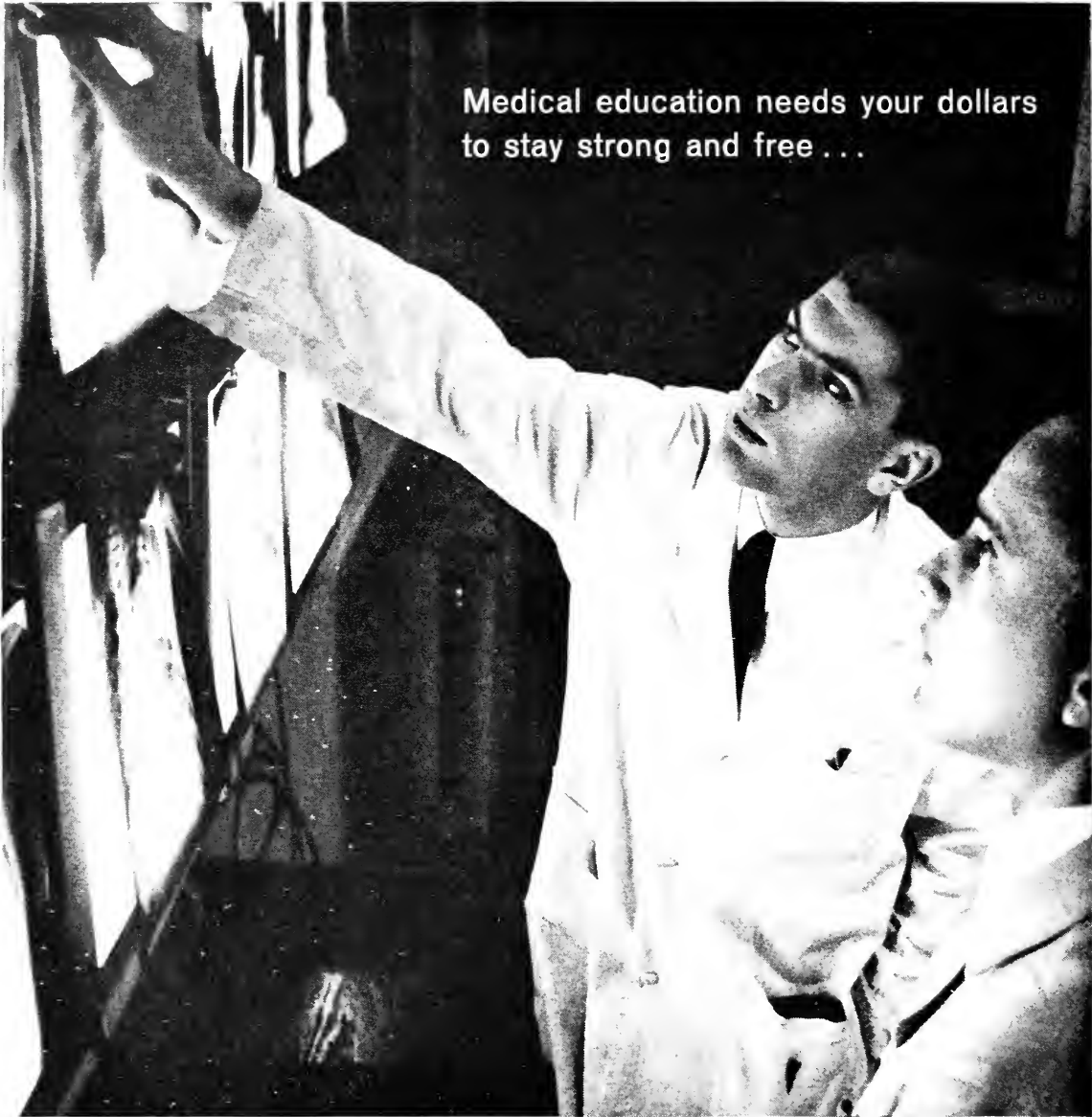
1. *Myasthenia Gravis, Second International Symposium*: Chas. C Thomas, Springfield, Ill., 1961. Ed. Henry R. Viets.
2. OSSERMAN, K. E.: *Myasthenia Gravis*, Grune & Stratton, New York & London, 1958.
3. NASTUK, W. L., STRAUSS, A. J. L., and OSSERMAN, K. E.: Search for a Neuromuscular Blocking Agent in the Blood of Patients with Myasthenia Gravis, *Am. J. Med.*, **26**:394, 1959.
4. NASTUK, W. L., PLESCIA, O. J., and OSSERMAN, K. E.: Changes in Serum Complement Activity In Patients with Myasthenia Gravis, *Proc. Soc. Exper. Biol. & Med.*, **105**:177, 1960.
5. STRAUSS, A. J. L., SEEGAL, B. C., HSU, K. E., BURKHOLDER, P. M., NASTUK, W. L. and OSSERMAN, K. E.: Immunofluorescence Demonstration of a Muscle Binding, Complement-Fixing Serum Globulin Fraction in Myasthenia Gravis, *Proc. Soc. Exper. Biol. & Med.*, **105**:184, 1960.
6. SIMPSON, J. A.: Myasthenia Gravis: A New Hypothesis, *Scot. M. J.*, **5**:419, 1960.

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# References

1. WENZEL, BERNICE M.: Techniques in Olfactometry: A Critical Review of the Last One Hundred Years, *Psychol. Bull.*, (New York) **45**:231, 1948.
2. ELSBURG, C. A., BREWER, E. D., and

- LEVY, I.: Sense of Smell. Relative Importance of Volume and Pressure of Impulse for the Sensation of Smell and the Nature of the Olfactory Process, *Bull. Neurol. Inst.*, (New York) **4**:270, 1935.
3. ALLEN, W. F.: Olfaction and Trigeminal Conditioned Reflexes in Dogs, *Am. J. Physiol.*, **118**:532, 1937.



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# BULLETIN *School of Medicine* *University of Maryland*

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## Editorial

### Conduct and Ethics

IN A COUNTRY where men are free, the rights of the individual receive great attention. The ability to think and act in accordance with individual desires is less restricted by the controls of society but, nevertheless, is definitely regulated by it. Without consideration and reasonable handling of the rights of one's fellow man there would be no civilization, but chaos, with might having the upper hand in all things.

When a man becomes educated and enters a profession it is obvious that he is not considered as just an individual by society. While he is held responsible for his acts and conduct, society also views them as coming from a representative of an educated group and a profession. If his behavior is unacceptable, society not only blames the individual but lays part of the responsibility for the behavior upon the group to which the individual belongs and upon his profession. This probably was one of the principal factors in the development of "ethics" or standards of behavior.

A physician does not enter into bargaining for his service with a third party, and his motives in medicine are not dictated by financial considerations. Internships are educational programs and should be selected on the basis of the quality of education afforded by the program. Bargaining for an internship primarily on the basis of how much money can be obtained for participation in one, in reality, is bargaining for the service rendered during an internship as the first consideration, with the education program assuming a secondary role. This type of conduct is unbecoming conduct for a physician and as such is unethical. It casts an unfavorable light upon the individual as being mercenary. This conduct is ultimately reflected upon his profession, his medical school, and his university. *It is an unfavorable reflection upon his character and his potential to practice medicine in the best interest of his patients.* Such conduct is a serious defect in character for the faculty of the medical school to consider in its determination as to whether or not an M.D. degree should be granted a medical student.

WILLIAM S. STONE, M.D.  
Dean

## The Imitator Returns

ON THE following page, in this edition is a clinical presentation of three cases of meningovascular syphilis, a disease which has been known since 1873. It is evident that the condition progressed to the visceral stage because of a failure to recognize the early signs and symptoms of syphilis. This should not have happened. Why did the mistake occur?

All physicians who received their training prior to 1940 were most acutely aware of the complexities of clinical syphilis. In 1940, an aroused public, an enthusiastic governmental program, and the advent of penicillin pointed to an era where syphilis would no longer be a clinical problem. However, the continued and ominous presence of the disease has been faithfully recorded in Public Health Records, although very little clinical syphilis has appeared. Why then the reappearance of the disease in its visceral form? Several possibilities might be considered. Some of these notions have been challenged, and others have been supported by very tangible evidence.

There is a whole generation of young physicians who have had but limited exposure to clinical syphilis. These young physicians are not aware of the disorder. Since syphilis has been "conquered," the attention of faculty and investigators has been turned to other fields, with perhaps some de-emphasis in the intensity of the clinical teaching of syphilis. Certain reports seem to indicate that practitioners are failing to report new cases of syphilis resulting in the Public Health authorities being unable to properly trace contacts. Next, routine examination of the blood for evidence of syphilis has been abandoned in at least a few clinics or services. There is some evidence which would suggest that drug therapy, once considered curative, is perhaps not as thoroughly successful as was once thought.

While the reappearance of the disease might be a product of any one or all of the above conditions, it is true, nevertheless, that the disease is reappearing with astonishing and increasing frequency. This ominous sign portends the imperative necessity for the early detection of the disease, for a constant reappraisal and review of the clinical data relating to syphilis, plus an awareness of its great imitative potentialities. Syphilis is still with us. Miracle drugs do not cure syphilis. Only a physician can cure syphilis.

# Meningovascular Syphilis

ELLIOTT LIFF, CAPT., MC,\* DARRELL S. BUCHANAN, CAPT., MC\*\*  
and ARTHUR J. LEVENS, LT. COL., MC, U.S.A.\*\*

RECENTLY, THREE CASES of neurosyphilis were diagnosed at Walter Reed General Hospital. These cases appeared to be of the meningovascular type and seem worthy of review and comment. Syphilitic involvement of the cerebral arteries has been known since 1874 when Heubner published his monograph on syphilitic diseases involving the cerebral arteries.<sup>1</sup>

## Case Reports

Case. 1. A 25-year-old white soldier was admitted to a southern military hospital in November 1961 with a history of numbness and weakness of the right side of the body which had persisted for one week. Spinal fluid examination revealed 157 lymphocytes/cu. mm., protein, 84 mg./100 ml. No serologic studies for syphilis were performed. The following day right hemiplegia and slurred speech developed and the patient was transferred to Walter Reed General Hospital.

The history revealed that the patient had been stationed overseas until May 1961 and had had two sexual contacts just prior to his departure for the United States. A serologic test for syphilis performed in early June 1961 as part of a periodic physical evaluation was negative. Later the same month, he noted a "skinned" area on the foreskin that subsided spontaneously in two weeks. In late July 1961 he reported to his local medical facility with

a generalized cutaneous eruption, sore throat, and cervical lymphadenopathy. Symptomatic treatment was prescribed, and the rash and sore throat disappeared. In September 1961 intermittent, generalized headaches developed and persisted to the time of the illness leading to his hospitalization.

Examination revealed an alert, oriented young man with a right hemiplegia and minimal dysphasia. A cardiolipin slide flocculation test was reactive with a titer of 1:32, cardiolipin complement fixation test and Treponema Pallidum Immobilization (TPI) were positive. Spinal fluid protein was 125 mg./100 ml. with 81 lymphocytes/cu. mm. Serological tests of the spinal fluid were reactive at 0.5 ml., 0.25 ml., and 0.1 ml. dilutions. Spinal fluid TPI test was reactive. The diagnosis of vascular neurosyphilis was made following these reports and treatment was instituted, utilizing 24 million units of procaine penicillin over a 20-day period. Concomitantly, physiotherapy was given and the patient experienced gradual improvement with return of function of the right upper and lower extremities. Speech returned to normal rapidly. Two months after penicillin therapy the cardiolipin slide flocculation test was reactive with a titer of 1:4.

*Comment:* The rapidity with which neurosyphilis can develop is illustrated dramatically in this case. With a classic history of exposure in early May, chancre in late June, and secondary syphilis in late July, it is apparent that in somewhat less than six months symptomatic vascular neurosyphilis ensued.

Case 2. A 39-year-old white soldier was admitted to an eastern military hospital because of the gradual onset of a left-sided weakness over the preceding 12 hours. Examination revealed a left hemiparesis, including a supranuclear left facial weakness. There was no history of hypertension, hypercholesterolemia, or heart disease, nor a family history thereof.

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This material has been reviewed by the Office of the Surgeon General, Department of the Army, and there is no objection to its presentation and/or publication. This review does not imply any indorsement of the opinions advanced or any recommendation of such products as may be named.

Spinal fluid examination showed 30 lymphocytes per high powered field and a protein of 44 mg./100 ml. Serological tests for syphilis of the blood and spinal fluid were not reported. Two days after admission the patient experienced sudden quadriplegia with weakness of the pharyngeal muscles manifested by the inability to speak, swallow, or clear secretions. Despite this severe motor involvement, no intellectual deterioration or impairment of consciousness took place. However, emotional lability, with uncontrollable crying characteristic of a pseudo-bulbar palsy, became a prominent feature of the clinical picture. Repeat spinal fluid examination was unchanged from the previous findings. A tracheostomy was performed and the patient was transferred to a military general hospital. Lumbar puncture was repeated with similar findings as before, but again no serologic tests for syphilis, either of the blood or of the spinal fluid, were reported. A bacterial pneumonia developed, and penicillin and chloramphenicol were administered for seven days followed by oral tetracycline. Over the ensuing weeks the patient gradually improved, and with the continuation of physical therapy he regained the use of his legs and arms. The ability to speak returned somewhat slower. He was transferred back to the original hospital and after a brief stay was transferred to Walter Reed General Hospital.

The history revealed that he had asymptomatic neurosyphilis in 1953 which was believed to have been contracted during World War II in association with a gonococcal urethritis. When the neurosyphilis was discovered, he had been treated with 100,000 units of aqueous penicillin every three hours for 96 injections for a total dose of 9,600,000 units. Follow-up spinal fluid examination was not obtained. In 1954, just before marriage, and again in 1960, the patient had serologic tests for syphilis which were reported as negative.

Examination revealed a marked quadriplegia with bilateral facial weakness and a typical picture of pseudo-bulbar palsy. A cardiolipin slide flocculation, cardiolipin complement fixation, and TPI tests were positive. Spinal fluid examination disclosed a protein of 68 mg./100 ml. and 5 lymphocytes/cu. mm. Serologic tests were positive in 0.5 ml., weakly reactive in 0.25 ml., and nonreactive in 0.1 ml. TPI was strongly reactive. Colloidal gold was 3332210000. The diagnosis of vascular neurosyphilis was made and the patient was treated

with 16,000,000 units of penicillin over a 14-day period. He continued to improve but remained with a spastic quadriplegia and practically unintelligible speech. A serological test for syphilis performed on the wife of the patient, whom he married one year after neurosyphilis was first discovered in 1953, was negative.

*Comment:* The patient was not queried early in the course of the illness regarding past venereal disease nor was syphilitic infection considered strongly enough for a serologic test for syphilis to have been carried out. The fact that the patient was evaluated by numerous physicians during three separate hospitalizations before syphilis was suspected, illustrates the low index of suspicion that has developed over the past several years regarding central nervous system syphilis.

Though histologic proof of the diagnosis of vascular neurosyphilis was lacking, the diagnosis was justified in view of the lack of other factors commonly associated with the "stroke in a young man" picture, such as hypertension, hypercholesterolemia, or evidence of generalized arteriosclerotic obliterative disease. Despite a documented history of intensive penicillin therapy eight years prior to the present disease, treatment failure must be assumed. Reinfection probably accounts for a considerable number of treatment failures in those treated early in the disease before resistance to the spirochete has occurred, but it is generally believed that reinfection does not occur in those who have had the disease long enough to develop immunity, even if they receive curative treatment.<sup>2</sup> The absence of syphilis in the wife of the patient represents indirect evidence against the possibility of reinfection on the part of the patient.

Case 3. A 30-year-old Negro soldier was found to have syphilis in 1948. At that time



he was treated with 12,000,000 units of penicillin per day for 15 days and was also treated with plasmodium vivax (malaria). In about November 1960, the patient had persistent blurring of vision in the left eye with loss of peripheral vision. There was also a tendency to stagger. He was first admitted to Walter Reed General Hospital on May 8, 1961, with complaints of malaise, easy fatigability, staggering gait, poor vision in the left eye, and constipation. General physical and neurological examinations revealed nystagmus on lateral gaze, constricted visual fields, decreased visual acuity in the left eye, ataxic gait, and some questionable changes in mentation. The deep tendon reflexes were active and symmetrical. Cardiolipin slide flocculation test was weakly reactive. The TPI test was positive. Spinal fluid showed 26 lymphocytes/mm.<sup>3</sup> total protein, 46 mg./100 ml., colloidal gold, 5553211000, serological test reactive in .5 ml. The patient was treated with procaine penicillin, 600,000 units twice a day for 14 days. He was considered to have shown considerable improvement and was returned to duty in June 1961. In September 1961 the patient returned to the hospital because of increasing ataxia and diplopia. At that time he was observed to exhibit considerable personality change from that of his previous admission. Pyramidal tract signs were found on the left. The spinal fluid showed 52 cells/mm.<sup>3</sup> (15% polys and 85% lymphocytes), colloidal gold, 5532100000, protein, 48 mg./100 ml., serologic test and TPI were negative. The patient's serum was reactive to the TPI test and weakly reactive in the cardiolipin slide flocculation test. A pneumoencephalogram was normal. Another course of procaine penicillin, 600,000 units, twice a day, for 14 days was given. The patient's condition remained unchanged after therapy and because of a similar case from this hospital, which was shown at postmortem to be cerebellar sarcoid,<sup>3</sup> a course of steroid therapy was given, but there was no clinical improvement.

*Comment:* In this case, the possibility that the underlying disease was other than syphilis was entertained. However, no other disease process could be demonstrated, and in view of the spinal fluid and serological findings this diagnosis seemed inescapable.

## Discussion

All three cases presented signs and symptoms of meningeal and vascular neurosyphilis as described by Merritt.<sup>4</sup> The patients were comparatively young men under the age of 40. In Case 1 there was rapid involvement of the nervous system after the initial infection and secondary rash. Lymphocytic pleocytosis of the spinal fluid indicated meningeal reaction to the chronic syphilitic infection. There was clinical evidence of cerebral occlusive vascular disease with no definite etiology other than syphilis. The serologic tests for syphilis, spinal fluid studies, and TPI test rather conclusively demonstrated the cause to be syphilitic in origin.

It is with some dismay that we note a tendency to either omit or overlook routine serological studies for syphilis in previous visits or hospitalizations. This indicates a need for an awareness of neurosyphilis so that delay in diagnosis and treatment might be avoided. In all suspected cases routine serological tests for syphilis should be scrupulously accomplished.

In 1956<sup>5</sup> a cooperative study of 765 patients with asymptomatic neurosyphilis was carried out to assess the efficacy of penicillin treatment. The probability of progression to symptomatic neurosyphilis was shown to be only 3.3% by the seventh year. This, however, included 114 patients who were retreated for various reasons, including 95 who were retreated for neurosyphilis. Many of these 765 patients also received additional penicillin during the period of observation subsequent to "study treatment" because it was felt that the process was progressing or that biologic cure had not been obtained. This emphasizes the importance of follow-up spinal fluid examination

over the ensuing years, since active asymptomatic neurosyphilis manifested by a recrudescence of pleocytosis of the spinal fluid can occur.<sup>6, 7</sup>

Case 2 represents a patient with asymptomatic disease who received what is usually considered to be adequate therapy but who had a relapse. Since no follow-up spinal fluid examination was done, no comment can be made regarding the spinal fluid findings between the time the asymptomatic neurosyphilis was first discovered and the time the symptomatic phase occurred. The good results attained by the cooperative study group can be shared by all clinicians dealing with this problem only if meticulous follow-up of all patients is carried out.

A preliminary survey of the patient population admitted to the Neurology Service at Walter Reed General Hospital in the past several years reveals that such symptomatic cases as presented here are more frequent than in former years. This may portend that in spite of adequate penicillin therapy for primary infections there is a resurgence of neurosyphilis. Further study might show that in some cases of neurosyphilis, or certain types of neurosyphilis, such as the meningovascular type, the response to penicillin treatment leaves much to be desired—as, for instance, in Case 3. It might even be disclosed that the main types of neurosyphilis have changed from general paresis

and tabes dorsalis to the meningovascular type.

### Summary

1. Three cases of neurosyphilis believed to be meningovascular in type are described.

2. These cases may indicate a trend toward a greater frequency of occurrence of neurosyphilis in spite of earlier penicillin therapy.

3. An increasing awareness is urged so that early diagnosis and advantageous treatment might be employed.

### References

1. HEUBNER, O.: *Die Luetische Erkrankung Der Hirnarterien*, Leipzig, Vogel, 1874.
2. CECIL, R. L.: *A Textbook of Medicine*, ed. 10, W. B. Saunders, 1959, pp. 329.
3. POPPER, J. S., BINGHAM, G. W., and ARMSTRONG, F. S.: Sarcoid Granuloma of the Cerebellum, *Neurology*, 10:942, 1960.
4. MERRITT, H. H.: *A Textbook of Neurology*, ed. 2, Lea and Febiger, 1959, pp. 116.
5. HAHN, R. D., *et al.*: Penicillin Treatment of Asymptomatic Central Nervous System Syphilis, I. Probability of Progression to Symptomatic Neurosyphilis, *A.M.A. Arch. of Derm.*, 74:355, 1956.
6. HAHN, R. D., *et al.*: Penicillin Treatment of Asymptomatic Central Nervous System Syphilis, II. Results of Therapy as Measured by Laboratory Findings, *A.M.A. Arch. of Derm.*, 74:367, 1956.
7. KOFMAN, OSCAR: The Changing Pattern of Neurosyphilis, *Canad. Med. Ass. J.*, 74:807, 1956.

# Topical Therapy with Fluocinolone Acetonide

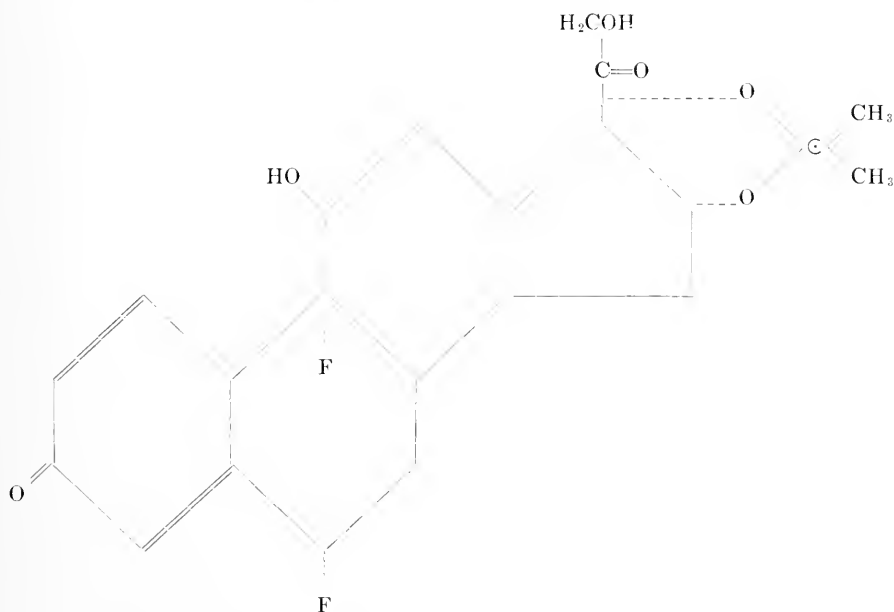
HARRY M. ROBINSON, JR., M.D., JOAN RASKIN, M.D., and  
WILLIAM J. R. DUNSEATH, M.D.

IN PREVIOUS PUBLICATIONS, the value of topically applied corticosteroid preparations in the management of certain inflammatory dermatoses was established.<sup>1, 2, 3, 4, 5</sup> The superiority of fluocinolone acetonide in topical therapy was documented in a recent report.<sup>6</sup> By a double blind study, it was demonstrated that topical application of fluocinolone acetonide, 0.025% in a cream base, was definitely superior to 1.0% hydrocortisone, and 0.5% prednisolone. The fluocinolone acetonide cream was also somewhat more effective than 0.1% triamci-

nolone acetonide cream in the treatment of dermatoses normally responsive to topical steroid therapy.

This report summarizes the recent studies on fluocinolone acetonide when used in different concentrations in four different bases. Also included are observations on the effectivity of fluocinolone acetonide cream when used with a new type of occlusive dressing.

*The Drug:* Fluocinolone Acetonide (6 $\alpha$ , 9 $\alpha$  difluoro 16 $\alpha$ , 17 $\alpha$  isopropylidenedioxy  $\Delta$  hydrocortisone) has the following structural formula.



From the Division of Dermatology, Department of Medicine, School of Medicine, University of Maryland, Baltimore.

The supplies of Fluocinolone Acetonide used in this study were received from Dr. Kenneth J. Dumas, Director of Clinical Research, Syntex Laboratories, New York.

Experimental animal studies indicate that fluocinolone acetonide is 60 to 80 times more potent than cortisone and hydrocortisone. Initial clinical studies

proved the drug to be ineffective on oral administration in the treatment of generalized dermatoses which normally respond to systemic steroid therapy.<sup>7</sup>

*Preparations Used:* The preparations used in the double blind studies were received under code label. In the standard cream base, fluocinolone acetonide was furnished in concentrations of 0.025%, 0.01%, and 0.005%. A concentration of 0.025% was prepared in an emollient base. A preparation of fluocinolone acetonide 0.025% and neomycin (5 mg. per gm.) in the standard cream base was also submitted for study. Fluocinolone acetonide (0.025%) was dissolved in ethylene glycol for topical application.

Saran wrap (Dow Chemical Co.) was used in combination with the 0.01% preparation of fluocinolone acetonide in the standard cream base for occlusive dressings.

*Patient Selection:* Patients used in this study were examined and treated in the author's private practice, University Hospital Dermatology Out-Patient Clinic, and in hospitalized patients at the University Hospital.

### Results

*Topical Therapy of Dermatoses with Fluocinolone Acetonide Cream (0.025%):* In a previous report, 156 patients with various inflammatory dermatoses were treated with fluocinolone acetonide cream. Fluocinolone acetonide in a concentration of 0.025% in cream base proved to be effective in the treatment of atopic dermatitis, seborrheic dermatitis, contact dermatitis, localized neurodermatitis, perianal eczema, eczema of the vulva, neurodermatitis, eczematous dermatitis, and nummular eczema. Since that time, 76 additional patients with similar eruptions were treated with this preparation

and the results confirmed those previously obtained.

*Topical Treatment of Dermatoses with Fluocinolone Acetonide Cream (0.01% in cream base):*

This preparation was used in the treatment of 92 patients with various eczematous eruptions. Twenty-one of these patients had seborrheic dermatitis, 24 atopic dermatitis, 19 had neurodermatitis, 19 had contact dermatitis, 5 had perianal eczema, and 4 had stasis eczema. The results obtained with this concentration of fluocinolone acetonide were uniformly good. In all instances except allergic contact dermatitis, relapses were noted when the topical applications were discontinued. Ten of these patients had previously been treated with the 0.025% concentration of fluocinolone acetonide and had had recurrences of the eruption when the preparation was discontinued. When these patients were retreated using the 0.01% concentration of fluocinolone acetonide, the lesions underwent involution. The results obtained in this study indicated that the 0.01% concentration of fluocinolone acetonide was as effective as the 0.025% concentration.

*The Treatment of Dermatoses with Fluocinolone Acetonide Cream 0.005%:* The 0.005% concentration of fluocinolone acetonide cream was used in the treatment of 52 patients with various dermatoses which normally respond to treatment with topical steroid therapy. It was observed that this preparation was partially effective in producing involution of lesions but that the results were not as dramatic as those obtained with the stronger concentration. Double blind studies performed on hospitalized patients confirmed this observation. The 0.01% concentration of fluocinolone acetonide cream proved to be more effective.

*Topical Treatment of Dermatoses with Fluocinolone Acetonide in Ethylene Glycol 0.025%:* This preparation was used in the treatment of 23 patients with seborrheic dermatitis of the scalp. It proved to be partially effective. The majority of patients objected to the unpleasant "sticky" feeling produced by the local application and expressed a definite preference for the cream. Two patients complained of burning following the application and, because of this, discontinued its use.

*Topical Treatment of Dermatoses with Fluocinolone Acetonide 0.025% in Emollient Base:* Thirty-seven patients were treated with this preparation. The conditions treated included seborrheic dermatitis, atopic dermatitis, neurodermatitis, eczematous eruptions of the hands, stasis dermatitis, dyshidrosis, and contact dermatitis. Good results were obtained in all instances except the patient with dyshidrosis. The preparation was ineffective in this instance. Fluocinolone acetonide in the emollient base was particularly effective in the treatment of those patients who had dry scaling eruptions. In all instances except allergic contact dermatitis some recurrences were noted when the topical application was discontinued. The lesions subsided when the medication was reapplied.

*Topical Treatment of Dermatoses with Fluocinolone Acetonide (0.025) plus Neomycin (5 mg. per gm.) in cream base:* Ninety-six patients with eczematous eruptions in which there was some secondary pyogenic infection were treated with the fluocinolone acetonide-neomycin combination in a cream base. The conditions treated included atopic dermatitis, seborrheic dermatitis, contact dermatitis, neurodermatitis, pruritus ani, and similar conditions which normally

respond to topical steroid therapy. The preparation proved to be effective in all instances. No adverse reactions were encountered. In all instances except allergic contact dermatitis, recurrences were noted when topical application was discontinued and the lesions involuted again when the cream was reapplied.

*Fluocinolone Acetonide Cream as an Occlusive Dressing with Saran Wrap:* In this part of the study, fluocinolone acetonide cream (0.01%) was used exclusively. Treatment was limited to those patients who had localized chronic lichenified dermatitis (localized neurodermatitis) or resistant psoriasis lesions. Five patients with large lichenified plaques of neurodermatitis on the lower extremities were treated with local applications of fluocinolone acetonide cream, covered with saran wrap and then wrapped with gauze. Dressings were left in place for one week. Dramatic involution of lesions was noted in all instances when the occlusive dressings were removed. Five patients with recalcitrant psoriasis plaques were treated in a similar fashion. At the end of one week marked involution of lesions was noted in all patients. Because of the discomfort experienced by some of these patients due to the prolonged occlusion with saran wrap and gauze, a second series of 30 patients was treated with local application of the fluocinolone acetonide cream and saran wrap but were instructed to change the dressing once each day. This group of patients also obtained gratifying results without the discomfort produced by prolonged occlusion. Patients who had more extensive involvement were treated with fluocinolone acetonide cream and the lesions were covered with saran wrap which was held in place by stockings, underwear, brassiere, or girdle, depend-

ing on the location of the lesions. Forty patients having either psoriasis or chronic lichenified dermatitis (neurodermatitis) have been treated by this method. There has been dramatically increased therapeutic effect of fluocinolone acetonide cream when used as an occlusive dressing with saran wrap.

### Discussion

Double blind studies indicate that 0.025% fluocinolone acetonide cream is more effective on topical application in the treatment of responsive dermatoses than 1.0% hydrocortisone and 0.5% prednisolone in similar bases. In this same study, it was obvious that this concentration of fluocinolone acetonide cream produced a therapeutic effect equal to 0.1% triamcinolone acetonide cream and in several instances was even more effective. Another double blind study indicated 0.01% fluocinolone acetonide cream was as effective as 0.025% fluocinolone acetonide cream but the concentration of 0.005% of the steroid was definitely inferior.

A combination of fluocinolone acetonide with neomycin was effective in the treatment of eczematous eruptions complicated by secondary pyogenic infection. It was apparent that the steroid did not inhibit the effect of the antibiotic and the antibiotic did not inhibit the effect of the steroid.

Fluocinolone acetonide, 0.025% in emollient base, was especially effective in the treatment of eczematous eruption where excessive dryness was an annoying feature. Adverse reactions were not encountered with any of these preparations.

A preliminary study with fluocinolone acetonide cream (0.01%) used as an occlusive dressing with saran wrap has proved to be effective in the treatment

of recalcitrant lesions of neurodermatitis and psoriasis. There is a dramatically increased therapeutic effect of the steroid when applied under an occlusive dressing with saran wrap when compared to the same preparation applied for the same period of time without the occlusive dressing. This effect may be due to the fact that the therapeutic agent is brought in closer contact with the affected areas and is not rubbed off on clothing or porous dressings. It is also possible that the maceration created by the occlusive non-absorbent material probably increases percutaneous absorption.

### Conclusion

On topical application 0.025% fluocinolone acetonide cream is an effective agent in the treatment of dermatoses normally responsive to topical steroid therapy. By double blind studies it has proved to be more effective than 0.1% hydrocortisone cream and 0.5% prednisolone cream. In several instances it was more effective than 0.1% triamcinolone acetonide cream. A concentration of 0.01% fluocinolone acetonide cream on double blind study has proved to be as effective as the 0.025% concentration. A combination of fluocinolone acetonide and neomycin is effective in the treatment of secondarily infected eczematous eruptions. Fluocinolone acetonide in an emollient base is effective in the treatment of eczematous eruptions where excessive dryness is a feature. Fluocinolone acetonide occlusive dressings with saran wrap is effective in the treatment of recalcitrant lesions of neurodermatitis and psoriasis.

**For references turn to page 30.**

# The Use of Computers in Auditory Research

*With Particular Reference to Measurement of Auditory Thresholds from Evoked Cortical Potentials by Continuous "On-Line" Averaging Techniques*

STEVEN J. BORSANYI, M.D., and CYRUS L. BLANCHARD, M.D.

ELECTROPHYSIOLOGICAL RESPONSES in the auditory system can be recorded relatively easily in experimental animals at various levels between the cochlea and the auditory cortex. However, the study of electrophysiological responses in man presents a special problem, since the auditory pathway cannot be exposed, with the exception of the middle ear, for recording cochlear potentials and action potentials of the VIII nerve from the round window. VIII nerve action potential can also be recorded directly from the nerve in the internal auditory meatus when it is exposed surgically for various reasons. However, this opportunity is just incidental and cannot be counted upon as a diagnostic approach. The ability of recording cochlear potentials indicates that the hair cells in the cochlea are more or less intact, while action potentials of the VIII nerve represent most likely only first order neuron responses in the auditory pathway.

During the years, a great number of methods have been worked out using a variety of biologic or biophysical functions for the assessment of hearing in man at higher levels than the cochlea. A few of the better known ones are the eye-blink test, the dynamic changes in the pupil size, impedance changes in the ear due to protective contraction of the middle ear muscles and the psychogal-

vanic skin resistance test. While these tests can be helpful adjuncts within their limitations in the objective evaluation of man's hearing acuity, especially the PGSR, they have one thing in common: that is, none of these auditory reflex activities necessarily require cortical integration.

The "arousal response" recorded by electroencephalography during sleep also has been in use for a long time. While changes in the evoked cortical potentials might be useful to demonstrate the presence of auditory functions, this technique for quantitative measurement is not practicable.

The feasibility of recording evoked cortical responses by gross surface electrodes from the scalp of conscious human subjects to calibrated auditory stimuli as a measurement of hearing became possible with the introduction of a new method to biological data processing. This method has evolved from the use of on-line computer averaging techniques for the study of biological variables, in this case evoked cortical potentials to sound stimuli.

Just as the microscope permits the observation of details which are impossible to see with the naked eye, similarly the averaging techniques allow observations of electric patterns of behavior in the brain which cannot be detected by the eye looking at an electroencephalographic (EEG) record because of the much greater spontaneous background activity of the brain. Because of the constant

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latency of evoked cortical potentials, they can be separated from the spontaneous activity of the brain by repeated sampling of the EEG output at fixed intervals following stimulation. As each sound stimulus is presented, preferably clicks or short bursts of different tones at various intensities to the subject being investigated, the computer starts to sort the received evoked cortical responses into a given number of separate sequential storage channels, each remembering the instantaneous sum of signals appearing at particular sequential times. During read out each of the channels reports the sum of all the previous values stored in it, which can be visually displayed on an oscilloscope, X-Y plotter, or stripchart. This information also can be stored in the computer and repeatedly displayed. The spontaneous background activity will be canceled out in the long run because it is temporarily not related to the stimulus and the sum of the positive and negative potentials of the spontaneous activity at any given sequential time tend to average to zero with repeated sampling. During the same time the pattern of the evoked cortical responses slowly arises from the background activity, because the potential change in the evoked cortical response occurs always in the same direction (within certain limitations) at any given sequential time following the presentation of the stimuli. The extraction of signals (evoked cortical responses) from the background "noise" (spontaneous activity) is further enhanced by the fact that for a constant response the signal-to-noise ratio is increased by a factor that is the square root of the number averaged.<sup>1</sup>

Other possible uses of averaging techniques in man are to study cochlear responses at very low stimulus intensities

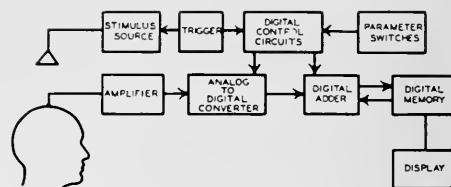


Fig. 1. Schematics of the equipment.

or to record neural potentials of the VIII nerve when cancellation of the cochlear microphonics is desirable in order to bring out more clearly neural potentials.

Figure 1 shows the block diagram of the equipment used for the experiment.

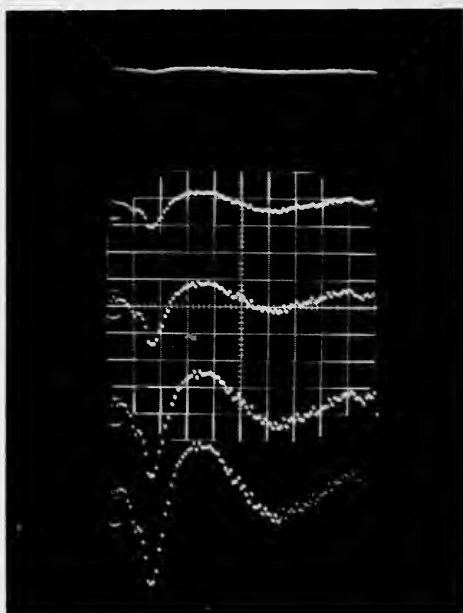


Fig. 2. Computed average responses to clicks as it is recorded from the auditory cortex of the unanesthetized cat. (See text for details.)

The next illustration (Figure 2) shows how the pattern of evoked cortical responses arises as it is recorded from the auditory cortex of an unanesthetized cat. The sound stimulus consists of clicks generated by a Grass stimulator at a rate of one click/second. Sound pressure level is 60 db at the external auditory meatus. The emergence of the pattern of evoked



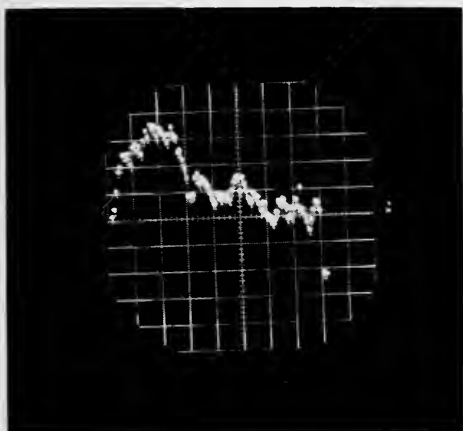


Fig. 3. Computed average response to 200 successive clicks as it is recorded from scalp electrodes in man.

cortical response is continuously displayed and followed on the face of an oscilloscope. Serial pictures are taken before the run, then after the presentation of 100, 200, 300, and 400 consecutive clicks. It can be clearly seen how the pattern of the response becomes more distinct with each successive group of 100 clicks (sweep time is 200 msec., gain 10, 0.5 msec. ordinate).

Figure 3 shows the pattern of evoked cortical response as it is recorded by surface electrodes from man. Differential electrodes are placed over the left temporal lobe and in the midline on top of the head. Stimulus is the same as for the first illustration. The picture was taken after 200 clicks (sweep time 80 msec., 10 gain, 0.5 msec. ordinate).

Most of the data on human subjects is preliminary, including our own.<sup>2-5</sup> However, we have reason to believe that an extensive study in a clinical setting with normal and pathologic hearing would

clarify to what extent we can rely on this method as a clinical tool in assessing someone's hearing. It is to be seen how conditioning, habituation, fatigue, or distraction will affect the pattern of these evoked cortical responses. The correlation of a large volume of data obtained by standard audiometric techniques plus the history and physical examination of these patients with the results of this new method will give further insight as to the validity of this technique. This method seems to be especially promising in those cases such as infants or small children with communication disorders where other testing methods are still somewhat inadequate.

The authors wish to express their sincere thanks to Dr. Robert Galambos, former Chief, Department of Neurophysiology, Walter Reed Army Institute of Research, for his guidance and advice in introducing them to this method.

### References

1. Communication Biophysics Group of Research Laboratory of Electronics and W. M. Siebert. Processing Neuroelectric Data (The Technology Press of the Massachusetts Institute of Technology, Cambridge, Mass., 1959; Technical Report 351, Research Laboratory of Electronics, M.I.T., July 7, 1959).
2. GEISLER, C. D., FRISHKOPF, L. S. and ROSENBLITH, W. A.: Extracranial Responses to Acoustic Clicks in Man, *Science*, 128:1210 (Nov.), 1958.
3. CLYNES, MANFRED E.: Personal communication.
4. GALAMBOS, ROBERT: Personal communication.
5. LOWELL, E. L., WILLIAMS, C. T., BALLINGER, R. M., and ALVIG, D. P.: Measurement of Auditory Threshold with a Special Purpose Analog Computer, *J. Speech and Hearing Research*, 4:105 (June), 1961.

# An Automatic Cardiac Monitor-Pacer

R. ADAMS COWLEY, M.D., MORRIS TISCHLER, AVRUM TAMRES, and SAFUH ATTAR, M.D.

TECHNICS for detecting and analyzing electrical activity of cardiac muscle are well documented. This includes inherent activity as well as anodal and cathodal stimulation<sup>1, 2, 3, 4</sup>. A heart monitor has been developed which automatically turns on a stimulator when the heart rate drops below a preset rate and then switches the stimulator off when the rate is inherently resumed. The combination of a stimulator and monitor acting together automatically is both feasible and practical as proven by animal experimentation and clinical trial.

The unit can be operated both as a monitor or a pacer. The instrument is operated on self-contained batteries or on alternating current. Impulses from the patient's heart rhythm can be continuously telemetered. Components of the monitor-pacer are illustrated in Figure 1.

The pacer may be used externally or internally at rates up to 250 beats per minute. The negative going exponential pulse has a maximum amplitude of 250 v with a pulse width at half power of 2 msec. Pulses from the pacer are indicated by a lamp indicator. A test terminal is provided for preoperative checks.

*Operation:* The monitor-pacer is operated from three colored pushbuttons (Fig. 2). All controls are located in the front panel except the recycle time-out which is in the rear.

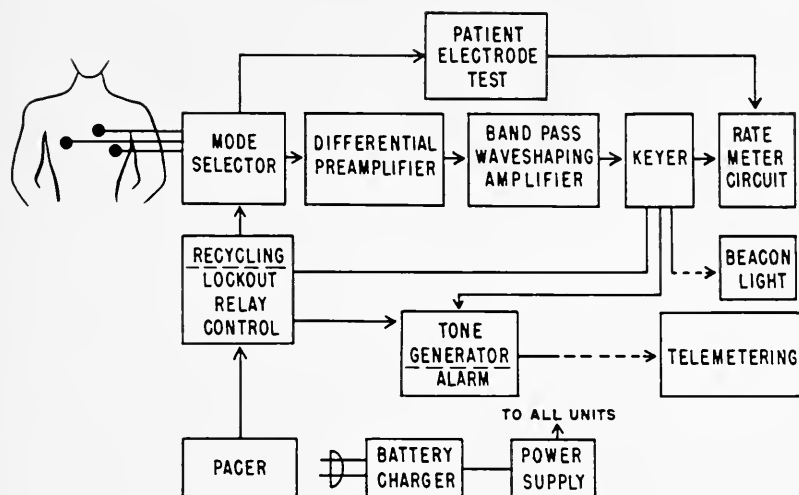
In normal operation the patient leads are connected in the usual manner and the instrument is turned on. The leads are put on the chest if the cardiac pacer is to be used. The patient electrode test button (black) is depressed in order to determine the resistance made between skin contacts and electrodes. Skin areas which have not been properly prepared with electric paste are quickly detected and corrected.

The monitoring is switched to the normal monitoring position by depressing the automatic button half way and releasing it. In the monitor position, a variable tone generator produces audible tone bursts for each beat. A direct reading rate meter also indicates the average heart rate. Complete depression of the automatic button places the monitor in automatic operation. If the heart falters or slows below the period set on the recycle control, the pacer is automatically activated and will remain in operation for 30 seconds at which time it will re-sample the patient's cardiac rhythm. A normal rhythm switches the instrument again to the monitor position.

If a heart beat is not received during the present sampling period, the pacer is again activated for 30 additional seconds. The cycle repeats itself as often as necessary or until the "pacer only" button is pressed. This button permits the pacer to function without the monitor recycle control.

During the recycle period and while the pacer is in the automatic cycle, an alarm may be continuously heard. The volume control returns to the full volume

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### BLOCK DIAGRAM AUTOMATIC CARDIAC MONITOR-PACER

Fig. 1. The 11 essential components for the automatic cardiac monitor-pacer.

position for the alarm period even if it was left in the "low" position.

The three electrode wires to the patient are used for both monitoring and pacer action. Faulty action at the monitor due to a loose electrode cannot lead to a shock stimulus from the pacer.

A continuous impulse from the heart rhythm as well as the alarm tone can activate the telemetering control device. Complete monitoring control operation is therefore feasible over distances limited only by the power of the transmitter receiver.

The rechargeable battery supply remains in the charging position while the plug is attached to the alternating current line. When removed from the line plug, the system will continue to operate for many hours without switching to any other power sources.

In addition to the audible alarm, a red beacon lamp can be attached to the rear accessory plug. This type of connection permits distant visual monitoring.

Cardiac stimulation to be effective must be applied as soon as possible after the heart has started to falter. The monitor described provides a means of monitoring and stimulating as required.



Fig. 2 This self contained transistorized unit contains the monitoring system as described, a cardiac pacer and a telemetering device. The telemetering device, re-setting components and warning light are contained in the back and are not shown.

This instrument has been used during animal investigations and is now undergoing clinical trial.

#### References

1. TISCHLER, M., COWLEY, R., ADAMS, ATTAR, S.: Open and Closed Chest Stimulation with an Autoclavable Cardiac Stimulator, *Am. S.F.A.I.O.*, 5:309, 1959.
2. HOPPS, J. A. and BIGELOW, W. G.: Electrical Treatment of Cardiac Arrest, *Surgery*, 36:333, 1954.
3. SIMPSON, R.: Cardiac Monitor for Detection and Differentiation of Cardiac Standstill, *Surg., Gynec. & Obst.*, July, 1957.
4. ZOLL, P. M., *et al*: Treatment of Unexpected Cardiac Arrest by External Electric Stimulation of the Heart, *New England J. Med.*, 1956.

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#### Topical Therapy with Fluocinolone Acetonide

#### References

1. SULZBERGER, M. B. and WITTEN, V. H.: Effect of Topically Applied Compound F in Selected Dermatoses, *J. Invest. Dermat.*, 19:101, 1952.
2. ROBINSON, H. M., JR. and ROBINSON, R. C. V.: Treatment of Dermatoses with Local Application of Hydrocortisone Acetate, *J.A.M.A.*, 155:1213, 1954.
3. ROBINSON, H. M., JR.: Prednisone in Treatment of Selected Dermatoses: Preliminary Report, *J.A.M.A.*, 158:473, 1955.
4. ROBINSON, R. C. V. and ROBINSON, H. M., JR.: Topical Treatment of Dermatoses with Steroids, *South. M. J.*, 49:260, 1956.
5. ROBINSON, H. M., JR., ROBINSON, R. C. V., and RASKIN, JOAN: Triamcinolone in Dermatologic Therapy, *South M. J.*, 52:330, 1959.
6. ROBINSON, H. M., JR.: Fluocinolone Acetonide, *Arch. Dermat.*, 83:149, 1961.
7. RUDEL, HARRY: Personal Communication, Unpublished data.

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## Sebaceous Secretion and Comedones (Quantitative Study)

HARRY M. ROBINSON, JR., M.D., RAYMOND C. V. ROBINSON, M.D.,  
and MARK B. HOLLANDER, M.D.

CLAIMS have been made for the therapeutic virtues of each of the numerous topical preparations commercially available for the treatment of acne vulgaris. Since paired comparison or double-blind studies are impractical in the evaluation of topical preparations for the treatment of this condition, it is necessary to treat large numbers of patients and to devise some acceptable method to be used in objective evaluation. Dramatic therapeutic results are rarely obtained in acne regardless of the modalities used; therefore, the measure of effectiveness of acne therapy must be reduction in sebaceous secretion and decrease in papules, pustules, and comedo formation.

Photographic evidence is not a reliable method of gauging improvement because of the difficulty of duplicating factors of lighting and exposures. Techniques for comedo count and quantitative method of determining sebaceous secretion have been devised. Preparations have been studied by blind label technique and comparisons have been drawn between improved hygienic measures, medicated

cleansing pads, lotions and creams, and soap and water.

### The Study

*Patient selection.* The 327 patients with acne were treated with 18 different preparations in the dermatology outpatient clinic of the University of Maryland and the authors' private practices. The report includes only those patients who returned regularly during the minimum observation period of two to six months. The sex distribution was about equal. Patients ranged in age from 11 to 30 years. Approximately 95% of the patients were Caucasian.

*Comedo counts.* The comedo counter was made by drawing a 2.54 cm. square with india ink on pliofilm. This square (Fig. 1) was subdivided into 2 mm. squares. The selected site for the comedo count was marked on the patient's history and the same area was used for the initial count and counts made on follow-up visits.

*Sebum determinations.* On all patients used for the quantitative study of sebaceous secretion, specimens were collected from the forehead or the nasolabial folds, and the site of the specimens

From the Division of Dermatology, Department of Medicine, School of Medicine, University of Maryland.  
Read before Section on Dermatology, A.M.A. Annual Meeting, June 1961.

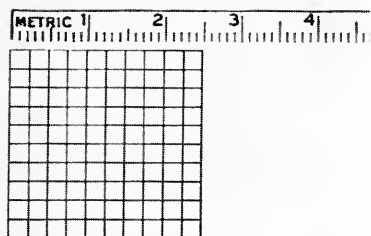


Fig. 1. Comedo Counter. The ruled area measures 2.54 cm. and the small subdivisions measure 2 mm.

was recorded in the patient's record so that subsequent determinations were made from the same area. A piece of siliconized paper was applied with a gentle rubbing motion to the selected area. It was placed in a small brown manila envelope and marked with the patient's name, date, and time of collection of the specimen. Before measurement with the densitometer, the specimens on siliconized paper were placed on a C. S. & E. warming plate to evaporate the perspiration.

The light source consisted of a 15-watt bulb mounted in a sealed aluminum-lined wooden box. Openings 1, 2 and 3 mm. in diameter were made in a metal slide so that the only light transmitted from the box came through these small holes. The siliconized paper containing the specimen was placed over one of the holes and fixed in place by a hinged wooden clamp (Fig. 2). Readings were made with a Photovolt densitometer (Fig. 3). Either the number one or number two range was used throughout the experiments. The densitometer was standardized to zero on the scale prior to each reading.

*Treatment method.* Patients were instructed to wash thoroughly with a bland

soap, morning and evening. They were advised to eliminate chocolate, nuts, ice cream, fried foods, butter, pastries, salad dressings, and other oily foods from the diet. Those who were treated with creams were instructed to apply the medications morning and evening, after cleansing with soap and water. Patients who were given the cleansing pads were told to use them three times daily.

*Medicated materials used.* In the initial part of the study, all of the preparations were received under code label.

1. Cream base preparations contained:

- a. 1.5% resorcinol monoacetate
- b. 0.5% neomycin sulfate, 1.5% resorcinol monoacetate, 0.5% hydrocortisone and 2.7% sulfur
- c. 2.7% sulfur
- d. 0.5% hydrocortisone
- e. No active ingredients (control)
- f. 0.5% neomycin sulfate
- g. 4.0% sulfur
- h. 1% hydrocortisone
- i. 0.5% neomycin and 4.0% sulfur
- j. 1.0% hydrocortisone and 4.0% sulfur

2. Cleansing pads contained:

- a. 3.9 ml. of a solution containing hexachlorophene 0.2%, allantoin 0.15% ethyl alcohol 59.55%, perfume concentrate 0.1%, and water.
- b. 3.9 ml. of a solution containing alcohol 59.60%, perfume 0.10% and water.
- c. 3.9 ml. of a solution containing alcohol 59.60%, perfume 0.10%, hexachlorophene 0.20%, and water.
- d. 3.9 ml. of a solution containing alcohol 59.60%, perfume 0.10%, allantoin 0.15%, and water.
- e. 3.9 ml. of a solution containing alcohol 59.60%, perfume 0.10%, neomycin sulfate 0.10% and water.
- f. 3.9 ml. of a solution containing alcohol 59.60%, perfume 0.10%, resorcinol monoacetate 1.5% and water.
- g. 3.9 ml. of a solution containing alcohol 59.60%, perfume 0.10%, neomycin sulfate 0.10% and water.
- h. 3.9 ml. of a solution containing alcohol 59.60%, perfume 0.10%, resorcinol monoacetate 1.5% and water.

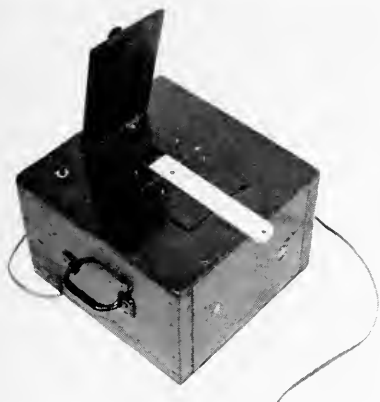


Fig. 2. The Light Source with the Perforated trap. The siliconized paper containing the specimen was placed over the opening in the metal slide plate, impaled on the four nail points, and held in place by closing the perforated trap. Readings were made by placing the light-sensitive element of the densitometer over the hole in the trap.

### Results

The degree of improvement was based initially on gross observation of: alteration in the amount of sebaceous secretion; decrease in size and number of comedones, incidence of new acne lesions, and the factitious element; acceptability of the preparations by the patients and the individual patient's well being.

The cream base preparation containing 0.5% neomycin alone was used in the treatment of 44 patients with acne vulgaris. Three experienced mild irritation, 22 were not benefited, and 19 showed moderate to marked improvement over a two- to six-month period.

The cream base preparation containing 1.5% resorcinol monoacetate was used in the treatment of 49 patients with acne vulgaris. Six complained of mild itching and "redness," 17 were not benefited, and 26 showed moderate to mild improvement.

Forty-six patients with acne were treated with the cream preparation containing 2.7% sulfur. Eight of this group complained of mild itching and "red-



Fig. 3. Photovolt Densitometer. The machine was standardized prior to each group of readings.

ness." Twenty-three patients were unimproved and 15 showed moderate to marked improvement after two to six months.

The preparations containing neomycin, resorcinol monoacetate, hydrocortisone and sulfur were used in the treatment of 57 patients with acne vulgaris. Six experienced mild itching and erythema, 33 showed moderate to marked improvement, and 18 were not benefited.

The preparation containing 0.5% hydrocortisone produced mild local irritation in two of the 42 patients treated. Twenty-one of these patients were benefited to some extent, and 19 were unimproved after two to six months.

The cream base was used as a control in the treatment of 51 patients with acne. Two of them experienced mild itching and erythema. Twenty-six patients improved while using the control base, and 23 were unimproved.

The preparation containing 4% sulfur was used in the treatment of 31 patients with acne. Six complained of mild itching and erythema, 19 were benefited, and six were unchanged.

The cream containing 1% hydrocortisone was used in the treatment of 31 patients with acne. No adverse reactions were encountered. Sixteen patients improved and 15 did not.

Twenty-three patients were treated with the preparation containing 0.5% neomycin sulfate and 4% sulfur. Four experienced mild itching and erythema, 10 improved, and 9 were unimproved.

The cream containing 1% hydrocortisone and 4% sulfur was used in the treatment of 38 patients. Two developed mild itching and mild erythema, 18 improved, and 18 were unimproved.

Eight different formulas were used in preparing the cleansing pads. This modality was used for periods of two to six months in the treatment of 215 patients with acne. Due to the high incidence of local irritation, it was necessary to discontinue the use of those pads containing resorcinol monoacetate. All other formulas, including the control, were equally effective in those patients who followed instructions. Patients considered the pads to be convenient, pleasant to use, and beneficial. One hundred fifty-three patients were improved, 43 were unimproved, 10 experienced mild itching and erythema, and 9 were lost from observation.

Varying degrees of improvement were observed after two to six months of treatment with all of the preparations used, including the placebos. No decrease in size or number of comedones was observed during serial examinations with the comedo counter.

The densitometer was standardized before each series of sebum determinations. Light from a 15-watt bulb was transmitted through a 3-mm. hole in the hinged lid of the light box. In the first study, readings were made on the num-

ber one scale. A reading of 11 was obtained on light transmitted through untreated siliconized paper and one of 22 was obtained on paper treated with mineral oil. This range was the standard used for reading specimens in the first, second, and fourth experiments.

*Study #1:* Specimens obtained from the forehead and nasolabial folds at 6:00 A.M. gave readings of 13 each. The face was washed thoroughly with a bland soap and warm water. Specimens obtained one hour later gave readings of 11. Two hours after cleansing, specimens gave readings of 13. This experiment was confirmed by repetition. Subsequent studies performed on other individuals produced similar results.

*Study #2:* Specimens were obtained from the forehead and nasolabial folds at 6:00 A.M., after which the face was wiped with a cleansing pad containing hexachlorophene, allantoin, and ethyl alcohol. From the initial specimens, readings of 13 were obtained. Specimens were obtained from both areas one, two, and three hours later, with readings of 11, 13, and 13 each. Subsequent studies performed on the same patient and five others, using the different formulas for the cleansing pads, yielded the same results regardless of the formula used.

*Study #3:* To determine difference in rate of sebaceous secretion, a wider range of readings on the densitometer (45 to 80) was obtained using scale number two and the 3-mm. aperture on the light box. The center of the forehead, the nose, the cheek, and the neck were the areas selected for study. Control readings were made on two separate days, when the face had not been washed for six hours. Two readings were also made on separate days one hour after cleansing the face.



Area	Controls	10 min. after using pads	30 minutes	1 hour
Forehead	80	45	64	68
	80			70
Nose	80	45	70	75
	73			73
Cheek	75	45	60	70
	57			60
Neck	67	49	56	65
	53			60

The higher readings on the nose, cheek, and neck in the first set of controls may have been due to the difference in temperature on the two days. The more rapid return of sebaceous secretion in this study than in the other studies may have been due to the time of day and to the fact that the subject had been working for five hours when the experiment was started.

*Study #4:* Preliminary calibration for this experiment yielded the maximum transmission of 15.8 through oiled paper. Specimens taken at 10:00 P.M. from the forehead and nose yielded reading 8.8 and 6.8 respectively. Specimens collected upon arising in the morning and before washing yielded reading of 9.0 and 8.4. At noon, approximately 3½ hours after bathing, the readings were 9.2 and 8.8 respectively.

#### Comment

The multiplicity of factors responsible for the production of adolescent acne limits the specificity of the therapeutic attack. It is generally recognized that endocrine imbalance is basically responsible for the development of this condition, but no safe and effective measure has been developed to correct this factor. At present, the generally accepted treatment measures include local applications, dietary restrictions, expression of

comedones, surgical drainage of pustular lesions, judicious use of antibacterial drugs, ultraviolet and roentgen therapy.

Exaggerated claims have been made for the efficacy of most of the commercially available topical applications used in the treatment of acne. Results obtained in this and previous studies<sup>1,2</sup> indicate that therapeutic measures must be individually tailored for each patient. Objective evaluation of the topical preparations used in this study suggest that general measures, including dietary restrictions, improved hygiene, and physician-patient rapport were more important than local treatment. It was also obvious that a treatment period of less than six months was not adequate for the evaluation of any topical preparation.

The local therapy of acne does not produce dramatic improvement. Regardless of the preparation used, none of the patients in this study who received local therapy alone obtained an objectively satisfactory result.

The preparations which contained sulfur and/or resorcin produced a relatively high incidence of local irritation. These adverse reactions were mild and difficult to interpret because the patient's complaints were rarely supported by objective evidence. Although a number of patients complained of mild itching and redness, erythema was only observed in six treated with the resorcin preparations and five treated with the sulfur preparations.

The results obtained in this study suggest that preparations containing sulfur, resorcin, or combinations of these, with or without hydrocortisone, may not have the therapeutic value in acne previously attributed to them.

In previous studies<sup>3,4,5</sup> antibiotic drugs incorporated in ointment, cream,

and lotion bases proved to be of no value in the topical therapy of acne. The results of this study, using coded preparations, indicated that addition of neomycin to the creams and cleansing pads did not enhance their effectiveness. Since neomycin has a sensitizing potential, and is of no particular value in the topical therapy of acne, it is unnecessary and undesirable to incorporate this antibiotic in preparations intended for this purpose.

These studies indicate that an appreciable number of patients treated with the various creams and cleansing pads improved, though quantitative determinations of sebaceous secretion and serial comedo counts did not offer an explanation. The observed decrease in the factitious element and the lower incidence of papules and pustules were probably due to the general measures employed rather than to any specific local therapy.

The greater degree of improvement from the use of cleansing pads rather than cream preparations could be attributed to the fact that the pads were readily available, pleasant to use, and gave the patient a refreshed feeling. The ease with which the cleansing pads removed the excessively oily secretion encouraged their use.

### Conclusions

1. Topical therapy with the preparations included in this study produced no decrease in the size or number of comedones in a two- to six-month period.

2. The sebum removal by the preparations used in this study lasted only a

brief period. Sebaceous secretion was not affected.

3. The topical therapy of acne with the preparations included in this study did not produce dramatic improvement.

4. Physician-patient rapport, improved hygiene, dietary restrictions, and other general measures proved to be more effective in the management of acne than any of the topical applications used.

5. Creams containing sulfur, resorcin, or a combination of the two, with or without hydrocortisone, were no more effective than the base.

6. The cleansing pads were pleasant to use, and more acceptable to the patient than the other topical applications. The pads containing resorcin were irritating, but all other formulations were satisfactory.

### References

1. ROBINSON, H. M., ROBINSON, H. M., JR., and ROBINSON, R. C. V.: Aureomycin: Oral, Intravenous and by Local Applications in the Treatment of Dermatoses, *South. M. J.*, 44:1116, 1951.
2. ROBINSON, H. M., JR.: Oxytetracycline in Dermatology and Syphilology, *International Record of Medicine and General Practice Clinics*, 168:207, 1955.
3. ROBINSON, H. M., JR.: Antibiotic Steroid Combinations for Topical Use, *Antibiotics Annual*, 302, 1955-56.
4. ROBINSON, H. M., JR. and RASKIN, JOAN: Clinical Application of Antibiotic Combinations, *Postgrad. Med.*, 22:529, 1957.
5. ROBINSON, H. M., JR.: Uses and Abuses of Antibiotics in the Treatment of Dermatoses. *Mil. Med.*, June 1953.

# The Decompressing Effect of Urea on the Labyrinth

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ONE OF THE MOST challenging problems of present day otolaryngology is the treatment of Meniere's disease. The major lesion that is noted in Meniere's disease is endolymphatic hydrops. Several approaches, medical and surgical, are currently used to decompress the labyrinth with various degrees of success. Upon the analogue of the high rate of improvement following administration of urea in acute glaucoma, we assume that urea would also be effective as a decompressing agent in acute attacks of Meniere's disease. In order to prove this theory, we conducted a series of animal experiments.

Adult cats, averaging in weight from 2.5 to 3.0 kg., were used for this experiment. Following sodium pentothal anesthesia, fenestration of the lateral semicircular canal was done using the Zeiss operating microscope. The administration of urea followed immediately the fenestration by intravenous drip 1.5 grams, kg. Serial photographs were taken through the operating microscope at 25 and 40 power at 15 minute intervals. These photographs were then printed and enlarged 20 times. No considerable change in the size of the exposed membranous semicircular canal was noted.

In our other method, just before the lateral semicircular canal was ready for



Micropipette in the cat's vestibule, passed through the round window. (Magnified 125 times.)

the final step of fenestration, a micropipette was inserted using a deFonbrune micromanipulator through the extremely thin bone into the membranous labyrinth. As soon as the membranous labyrinth was entered, the endolymphatic fluid ascended within the micropipette. No changes in the fluid level within the micropipette were noted while the urea was being administered or for a period of one to two hours thereafter.

In some instances, the perilymphatic space was entered by way of the round window. This procedure carries a high level of inaccuracy because of the technical difficulties of sealing off the membrane covering the round window. We observed no change in the level of the meniscus after the administration of urea.

Cochlear microphonics were also studied during the administration of urea. Teflon-coated silver electrode was placed on the surgically exposed round window in anesthetized cats. The frequencies in-

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vestigated were 500, 1000, 2000, and 4000 cycles per second. The sound was generated by a Beltone 12-A model audiometer. Cochlear potentials were registered before, during, and after the administration of urea on a Tektronix Model 502 Oscilloscope in the range of 300 to 550 microvolts. No significant changes were observed up to two hours following the administration of urea.

### Discussion

Urea as a cerebral decompressing agent was first suggested by Fremont-Smith and Forbes in 1927. Javid, in 1959 while studying the cerebral decompressing action, included also a patient with Meniere's disease in his series. His results were not conclusive.

Urea is a non-electrolyte diuretic. Upon intravenous administration, it does not enter into the metabolic processes of the body. Urea appears to act by causing an osmotic gradient between the blood and extracellular fluid.

The information obtained from these experiments was not conclusive as to the effect of urea as a labyrinthine decompressing agent. It is possible that:

1) The changes were too minute to be recorded by our apparatus. 2) Changes in the fluid pressure, if any, were not strong enough to overcome the capillary attraction within the micropipette. 3) The time period of two to three hours was too short to observe the change. Further studies are contemplated using more elaborate methods such as capacitance electromanometer for the determination of the endolymphatic pressure following the use of dehydrating agents such as urea.

Clinical trials with urea in man are also contemplated in properly selected cases of acute Meniere's disease.

### References

1. FREMONT-SMITH, F. and FORBES, H. S.: Intraocular and Intracranial Pressure: An Experimental Study, *Arch. Neurol. and Psychiat.*, 18:550, 1927.
2. JAVID, M.: Urea, New Use of an Old Agent: Reduction of Intracranial and Intraocular Pressure, *Surgical Clin. No. America*, 38:907 (August), 1958.
3. GOODMAN, L. S. and GILMAN, A.: *The Pharmacological Basis of Therapeutics*, 2nd ed., The MacMillan Co., 1955.

# The Effect of Carbon Dioxide Inhalation on Experimental Shock in the Rat\*

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EXPERIMENTAL SHOCK in the rat can be produced by rotation in a Noble Collip drum.<sup>1</sup> The primary mechanism of this traumatic shock is believed to be anhydremia resulting from increased capillary permeability.<sup>2</sup> A hemoconcentration is observed,<sup>1</sup> but free hemorrhages are seen in less than 1% of the cases. The purpose of this investigation is to study the effect of carbon dioxide inhalation on the mortality of a standard shock procedure.

*Materials and Methods.* A tumbling machine was used as described by Noble and Collip in which each of four drums measured 37.4 cm. in diameter and contained two prisms rotated at 40 revolutions per minute. A total of 42 white male Wistar rats between 175 and 275 grams were tumbled and observed for clinical effects and mortality for seven days. It was found from preliminary observation that the lighter rats (less than 200 grams) were more susceptible to shock. Hence, the number of rotations of control and experimental groups were determined by the weight of the rat. All animals were taped prior to trauma. After trauma their limbs were released, and they were returned to cages where food and water were available. The carbon dioxide (CO<sub>2</sub>) was administered before the trauma. The procedure of administration was as follows:

1. Rats were given 3 liters of CO<sub>2</sub> in

a 44-liter, air-tight box 30, 15, and 5 minutes prior to drumming.

2. The container was flushed with air before each CO<sub>2</sub> administration, thus maintaining a 5 to 8% concentration of carbon dioxide.

### Experimental Results.

Number of Revol.	Exp. Cond.	Av. Weight	Number Drummed	Number Dead in Hours After Trauma									
				0	1	1-3	3-24	24-96	Total	% Dead			
640	Cont.	197	9	0	2	1	3	0	6	67%			
640	CO <sub>2</sub>	197	9	0	1	1	0	0	2	22%			
680	Cont.	221	8	2	1	2	1	0	6	75%			
680	CO <sub>2</sub>	222	8	0	0	1	0	0	1	12.5%			
720	Cont.	260	4	0	1	3	0	0	4	100.00%			
720	CO <sub>2</sub>	250	4	0	1	0	0	0	1	25%			

### Totals of Experimental Results.

Number of Revolutions	Number of Rats	Number Number of Deaths		% Mortality	
		CO <sub>2</sub>	Control	CO <sub>2</sub>	Control
9 rats 640					
8 rats 680	21	4	16	19	76
4 rats 720					

Data for these two groups has been summed for use in estimation of probabilities by the Chi Square method. Yates 0.5 correction was used in calculation of Chi Square values, since the degrees of freedom equalled one.<sup>3</sup> If a probability of .02 or less was used as criterion of significance, the data indicated that for tumbled rats the likelihood of survival was significantly increased by breathing for 30 minutes prior to tumbling an atmosphere of 5-8% CO<sub>2</sub> in air.

*Discussion.* The association of CO<sub>2</sub> with shock is ascribed to the work of Henderson<sup>4</sup> who in 1918 hypothesized

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that increased respiratory activity from painful stimuli produced inactivation of the veno-pressor mechanism through acapnia. This ultimately is followed by low blood pressure, failing circulation, and asphyxia of the tissues. Many later investigators demonstrated that pain and hypernea was not always present in shock, and that shock might exist without acapnia, as well as acapnia without shock.<sup>5</sup> Thus, the role of CO<sub>2</sub> in the shock syndrome was discarded.

Autonomic blocking agents have been shown to prevent the irreversibility of the shock syndrome by altering the initial vasoconstrictive response so that peripheral tissue blood flow remains adequate. Dibenzylamine, for example, has been demonstrated to be effective in endotoxin,<sup>6</sup> hemorrhagic,<sup>7</sup> drum trauma,<sup>7</sup> and bowel ischemia shock.<sup>8</sup> It seemed plausible that the brain through internal local chemoreceptors could participate in the sympatho-adreno response. T. H. Benzinger<sup>9</sup> had a similar idea when he demonstrated at the recent American Medical Association convention that local temporeceptors in the hypothalamus initiate the peripheral vaso-constriction which regulates body temperature. Stone *et al.*<sup>10</sup> demonstrated in man a decreased pCO<sub>2</sub> and decreased cerebral blood flow in hemorrhagic shock. On giving 10 mgs. morphine sulphate intravenously which depressed respiration, the pCO<sub>2</sub> and cerebral blood flow returned to normal, and the shock symptoms were alleviated.

These authors described a hyperventilation of unknown etiology as causing the decrease in pCO<sub>2</sub>. Could not local accumulation of metabolites (particularly CO<sub>2</sub>) in certain localized areas of a cerebrum receiving inadequate flow stimulate this hypernea! Could not, in fact, the sympatho-adreno activation be influenced by ischemic local receptors! Fur-

thermore, could not the irreversibility of this syndrome be altered by lowering the intensity and duration of this stimulus through improving cerebral blood flow!

This work is a preliminary experiment in the effect of cerebral flow on shock mortality. (The influence of the adrenal glands and the direct vascular reactivity of CO<sub>2</sub> must be assessed.) Richards and Stein<sup>11</sup> have shown that 5% CO<sub>2</sub> administration for one hour causes an increased concentration of 17-hydroxy corticosteroids in adrenal venous blood in 40% of the rats studied. Levine and Remington,<sup>7</sup> however, suggested that repeated preparatory administration of adrenal steroids, in physiological doses, cannot be used to develop typical resistance. Finally, many studies are needed on pCO<sub>2</sub>, cerebral flow, and other biochemical and physiological determinations before any conviction can be attached to a causative relation between cerebral blood flow and shock.

### Conclusions

1. In states of shock produced in rats by a Noble Collip apparatus, a statistically significant drop in mortality was brought about by 5-7% CO<sub>2</sub> inhalation prior to rotation.
2. Possible interrelationships between pretraumatic administration of CO<sub>2</sub> and the prevention of shock are discussed.

### References

1. NOBLE, R. L. and COLLIP, J. B.: *Quart. J. Exper. Physiol.*, **31**:187, 1942.
2. HOUSAY, B. A.: *Human Physiology*, McGraw Hill Book Co., Inc., New York, 1955.
3. SAUNDERS, L. and FLEMING, R.: *Mathematics and Statistics*, Pharmaceutical Press, London, England, 1957.
4. HENDERSON, YANDELL, AND ASSOCIATES: The Venopressor Mechanism, *Am. J. Physiol.*, **46**:53, 1918.
5. MOON, V. H.: *Shock and Related Capillary Phenomena*, Oxford University Press, New York, 1938.

6. LILLEHEI, R. C.: Intestinal Factors in Irreversible Endotoxin Shock, *Ann. Surg.*, **148**:513, 1958.
7. BAEZ, S.: *Influence of Adrenalgic, Cholinergic, and Ganglionic Blocking Agents in Experimental Shock*, Transac. Fifth Conf. on Shock and Circulatory Homeostasis, Josiah Macy, Jr., Found., 151, 1955.
8. HERSHEY, S. G., LANZ, S., ROVENSTEIN, E. Z., and BAEZ, S.: Protection Against Shock Induced by Mesenteric Artery Occlusion, *Fed. Proc.*, **17**:377, 1958.
9. BENZINGER, T. H.: The Human Thermostat, Naval Medical Research Institute, Bethesda, Maryland. American Medical Assoc. Exhibit, New York City, Space 2724, June, 1961.
10. STONE, H. H., MACKRELL, T. N., BRANDSTILES, B. J., HARDAK, G. L., and NAMER, PAUL, JR.: The Effect of Induced Hemorrhagic Shock on the Cerebral Circulation and Metabolism of Man, *Surgical Forum* **1**, 789, 1954.
11. RICHARD, J. B. and STEIN, S. N.: Effect of CO<sub>2</sub> Exposure and Respiratory Acidosis on Adrenal Hydroxycortical Secretion in Anesthetized Dogs, *Am. J. Physiol.*, **188**:1, 1957.

# Effect of Hyperbaric Oxygenation on Noble Collip Drum Shock in the Rat

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PREVIOUS WORK in this laboratory on some effects of shock on enzyme systems in liver and brain has led us to believe that the shock syndrome in the rat is accompanied by decrease in such enzyme activities.<sup>1,2</sup> It was found that enzyme changes did not occur if the animals were tranquilized with chloroethoxybutamoxane prior to tumbling.<sup>3</sup> Moulton *et al.*<sup>4</sup> showed significant increase in survival in shocked rats which had been so tranquilized. Since hypoxia is one of the elements compounding the shock syndrome, it was thought possible that improved methods of oxygenation of the animal might also help in alleviating shock.<sup>5</sup> Experiments in this laboratory using partial extracorporeal perfusion in hemorrhagic shock in dogs showed only increased survival time without any beneficial influence on the outcome;<sup>6</sup> the mortality remaining unchanged. Subsequently, it has been shown by Esmond *et al.*<sup>7</sup> and Attar *et al.*<sup>8</sup> that hyperbaric oxygenation markedly improves survival rate in dogs subject to hemorrhagic shock. We now report experiments in which animals were subjected to Noble-Collip drum shock and subsequently held in an atmosphere of high pressure oxygen for two hours.

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## Materials and Methods

The pressure tank (Figure 1) consisted of an inexpensive small laboratory top-loading autoclave\*\* 30.5 cm. in diameter and 30.5 cm. in height which was modified so that oxygen could be injected into the bottom of the pressure vessel through a flexible tube originally designed to vent air from the vessel prior to pressurization with steam. The pop-off valve was removed from the top of the autoclave, the spring tension modified to open slightly above 3 atmospheres absolute and was mounted on a T fitting venting the top of the autoclave. The other arm of the T fitting was provided with a flexible vinyl hose which was clamped at the distal end. A pin hole orifice was made in the vinyl tube to continuously vent the chamber at a rate in excess of 1 L/min. during operation at 3 atmospheres absolute; this prevented accumulation of carbon dioxide within the chamber.<sup>9</sup> Oxygen was supplied from a standard pressure cylinder originally pressurized to 136 atmospheres and was delivered to the chamber through a standard reducing valve that allowed pressures of from 1 to 7.8 atmospheres absolute to be realized and continuously and smoothly maintained. Following transfer of the animals (groups of four) to the chamber, the chamber lid was placed loosely in the top of the tank and oxygen was allowed to flow briefly at atmospheric pressure to flush most of the air from the tank, after which the

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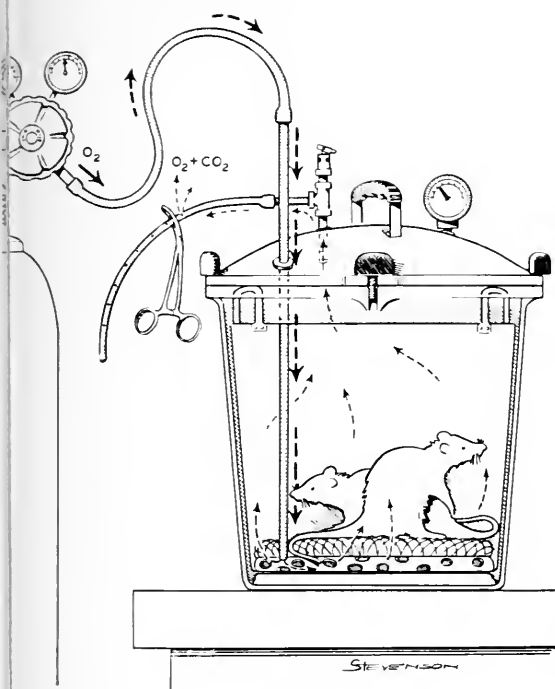


Figure 1

lid was sealed and pressurization was begun. The pressure was gradually raised over a period of 5 minutes to 3 atmospheres absolute pressure and the tank was allowed to remain at this level for 2 hours, after which the pressure was slowly and smoothly reduced to atmospheric pressure over a period of 15 minutes.

Young adult, white, male Wistar rats weighing 150-300 grams were selected for hyperbaric and control groups. Their legs were taped and they were drummed in a Noble-Collip type drum at 40 r.p.m. as previously described.<sup>4</sup> The severity of challenge by drumming was varied from 800 to 840 turns with intent to produce severe trauma and a reasonable survival. Following drumming, the animals were unfettered and the controls allowed to remain in open cages. Those previously selected for hyperbaric therapy were transferred to the pressure tank. The pressure was raised, maintained, and lowered as described above. The animals

were observed for 48 hours. The drummed animals presented the typical clinical appearance of severely shocked rats, similar to our previous experiments. Their noses, paws, and tails were cyanotic. Their respirations were shallow and rapid. They could be aroused by prodding, but they immediately slipped back into a severely obtunded state. Untreated, shock persisted for several hours with a high mortality in the first two hours. Several hours later, those that survived slept for a prolonged period. During this time they neither defecated nor voided.

The animals subjected to hyperbaric oxygen therapy had less mortality and demonstrated a rapid return of activity. Their color was normal, their eyes were bright. They responded rapidly to prodding. They stood on their feet and also defecated and voided. This active state persisted for  $\frac{1}{2}$  to 1 hour, following which the treated animals slept for 1 to 2 hours and then appeared normal. During all of this time they were easily aroused.

Table I. Observations on the Survival of Rats Following Tumbling Rates of 800-840 Turns According to Therapy Given

Treatment Group	No. of Animals	Survived 24 Hours	Died	Per Cent Survived
Control	15	6	9	40
Oxygen (2 Hrs.)	21	17	4	81

$$X^2 = 4.73$$

$$P < .05$$

$$P > .02$$

Table I shows that the survival rate 24 hours posttrauma was 81% for those animals which received pressure oxygen treatment, as contrasted with 40% in identically tumbled controls which had received no treatment. The difference when tested by the  $X^2$  method was statistically significant at a level of  $p < .05$  and  $p > .02$ .

## Discussion

Several factors may contribute to increased survival after shock. Recent results by Vennet *et al.*<sup>10</sup> show that glucocorticoids produced significant reduction in the mortality in female rats subjected to a modified Noble-Collip trauma procedure. Although the degree of shock exposure used by these authors differs from ours, their results tend to agree with ours inasmuch as they have about the same differences in mortality rate with and without treatment. An increase in the partial pressure of oxygen from 150 mmHg. in atmospheric air to 2280 mmHg. at three atmospheres absolute pressure causes dissolved oxygen in arterial blood to rise from .3 volume per cent to about 6 volume per cent. Since oxygen partial pressure has been increased 15 times, diffusion is greatly increased into volumes of tissue rendered anoxic by trauma to the circulatory system during tumbling, and anoxic injury is minimized until circulatory readjustment occurs.

Recent studies by Hardaway<sup>11</sup> have implicated intravascular clotting as a cause of refractory shock. If intravascular clotting is responsible for some deaths in control animals, exposure to high pressure oxygen may preserve vital underperfused tissues in treated animals until normal mechanisms of endogenous activation of plasmin and release of heparin result in fibrinolysis and restoration of flow in vascular circuits.

It appears that among several avenues open to the treatment of shock, high pressure oxygen therapy appears to be distinctly beneficial.

We wish to thank Doctor Matthew L. Taylor for the statistical analysis.

## References

1. BUXTON, R. W., HAINES, B. W., and MICHAELIS, M.: The Effect of Hemorrhagic Shock Upon Succinic Oxidation in Dog Liver and Brain Slices. *Bull. School Med. Univ. Maryland*, 46:3, 1961.
2. NINOMIYA, H., BUXTON, R. W., and MICHAELIS, M.: Observations on Rat Brain Dehydrogenases in Tumbling Shock. *Enzymologia*, 23:78, 1961.
3. NINOMIYA, H., BUXTON, R. W., and MICHAELIS, M.: Reductases, Glycolysis, and Protein Content of Rat Brain After Shock With and Without Tranquilization. *Biochem. J.*, 76:47P, 1960.
4. MOULTON, G. A., MICHAELIS, M., WAGNER, J. A.: The Effect of Drugs on Experimental Shock in the Rat. *Bull. School Med. Univ. Maryland*, 46:15, 1961.
5. BEAN, J. W.: Effects of Oxygen at Increased Pressure. *Physiol. Rev.*, 25: No. 1, 1945.
6. COWLEY, R. A., DEMETRIADES, A., MANSBERGER, A. R., ATTAR, S., ESMOND, W. G., and BESSMAN, S.: Hemorrhagic Shock in Dogs Treated with Extracorporeal Circulation. *Surg. Forum*, 2:110, 1960.
7. ESMOND, W. G., ATTAR, S., and COWLEY, R. A.: Hyperbaric Oxygenation in Experimental Hemorrhagic Shock: Experimental Chamber Design and Operation. *Trans. Amer. Soc. Artificial Internal Organs*, 8, 1962, in press.
8. ATTAR, S., ESMOND, W. G., and COWLEY, R. A.: Hyperbaric Oxygenation in Vascular Collapse. *J. Thor. Cardio. Surg.*, In press.
9. LAMBERTSON, C. J., MARSHALL, J. R.: Interaction of Increased  $pO_2$  and  $pCO_2$  Effects in Producing Convulsions and Death in Mice. *J. Appl. Physiol.*, 16:1, 1961.
10. VENNET, K. V., SCHNEEWIND, J. H.: The Effect of Steroids on Mortality in Experimental Traumatic Shock. *Proc. Soc. Exp. Biol. Med.*, 109:674, 1962.
11. HARDAWAY, R. M.: The Role of Intravascular Clotting in the Etiology of Shock. *Ann. Surg.*, 155:325, 1962.

# The Clinical Application of Psychotherapeutic Drugs

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## Introduction

SOME YEARS AGO in commenting on the nearly simultaneous arrivals of chlorpromazine and reserpine on the therapeutic horizon in the treatment of the psychotic patient as rekindling man's dream of ultimately finding a chemical agent that would resolve the schizophrenic complex with all its protean manifestations, fantasy has found itself gradually being replaced by reality.

Since that time we have seen the introduction of new categories of compounds with marked antidepressant activities which has almost made electroconvulsive therapy a thing of the past except for the acutely suicidal patient. There has been introduced a whole new category of compounds known as the minor tranquilizers of which meprobamate (Miltown or Equanil) has replaced the older phenobarbital as an anxiety relieving agent and more recently the introduction of chlordiazepoxide (Librium) which has extended the anxiety relieving spectrum to include such effects as rage, phobias, and obsessive compulsive reactions.

Aldous Huxley, in commenting on some of these developments, voiced in an almost lyrical fashion in an essay on the history of tension the following:

Once the seeds of science have been planted they tend to sprout and develop autonomously according to the law of their own being, not

according to the laws of our being. Pharmacology has now entered upon a period of rapid growth, and it seems quite certain that in the next few years scores of new methods for changing the quality of consciousness will be discovered. . . . The pharmacologists will give us something that most human beings have never had before. If we want joy, peace, and loving kindness, they will give us loving kindness, peace, and joy. If we want beauty, they will transfigure the outside world for us and open the door of visions of unimaginable richness and significance. If our desire for life is everlasting, they will give us the next best thing—aons of blissful experience miraculously telescoped into a single hour. They will bestow these without exacting the terrible price that, in the past, men had to pay for resorting too frequently to such consciousness-changing drugs as heroin or cocaine, or even that good old standby, alcohol. Already we have at our disposal hallucinogens and tranquilizers whose physiological price is amazingly low, and there seems to be every reason to believe that the consciousness changes and tension relievers of the future will do their work even more efficiently and at even lower cost to the individual. Human beings will be able to achieve effortlessly what in the past could only be achieved with difficulty, by means of self-control and spiritual exercises. Will this be a good thing for individuals and for societies? Or will it be a bad thing? These are the questions to which I do not know the answers.

These developments have led to a growing new science of psychopharmacology. No attempt will be made at this time to delineate the methodological, chemical, biological, experimental, and clinical contexts which play a role in this science. The task would be impossible within the time limits of this present-

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tation. However, to make up for this deficiency, I would strongly recommend for your reading and library a recently published book entitled *Drugs and Behavior*, edited by Uhr and Miller, and published by John Wiley & Sons.

As far as clinical psychiatry is concerned, psychoactive drugs serve four major purposes: 1) most important is the therapeutic elimination or modification of psychopathological symptoms; 2) drug-induced mental changes are of diagnostic significance if latent phenomena can be transferred into manifest ones as in the case of the various narcodiagnostic techniques; 3) drugs capable of inducing psychotic states have become indispensable for experimental psychopathology; 4) a study of their impact on the "normal subject" in order to obtain possible explanations for their therapeutic effect.

In this presentation, some of the drugs to be discussed will first be presented from the standpoint of their effect on the "normal subject." In a research study reported by Bennett entitled, "The Drugs and I," a clinical psychologist, utilizing himself as a subject, sampled such drugs as chlorpromazine, meprobamate, reserpine, and iproniazid. For comparative purposes he also utilized phenobarbital, dextroamphetamine, and interspersed placebos. Each drug was taken in the form of an unidentified capsule, with it being taken twice, but at different dosage levels with a minimum 48-hour interval between sessions. A standard regimen was developed of administering the medication at 9:00 A.M. and making use of scorable tests when feasible and resorting otherwise to improved measures and recorded impressions.

In the drugs described as tranquilizers Bennett reported that chlorpromazine at 100 mg. dosage:

... gave me my least efficient day with the exception of alcohol. I was drowsy within an hour, experiencing increasing lethargy and actually dozing off while trying to work. This was not attributable to my morning mood which was good. Perceptual acuity and thresholds were not much affected, but my responses were sluggish and indecisive. Performance on cognitive tasks were consistently inferior. I abandoned a crossword puzzle unfinished after 35 minutes, although later I found the puzzle easy to complete. I also felt unmotivated. My overall impression was one of sedation. I concluded that I had taken a substantial dose of phenobarbital. By 3 P.M. the effect was largely dissipated.

Reserpine was taken at 1 mg. and 0.5 mg. dosage. On both days I decided I had taken a tranquilizer, the clues being a mild sense of drowsiness and a passive, lazy feeling. I could easily conclude that reserpine's effect was not experienced within six hours.

The effects of meprobamate of 800 mg. dosage were a sense of inefficiency but less so than the preceding drug. The measured effects were those of some drowsiness within an hour but I was able to resist it. My mood remained good and companionable. I called myself relaxed and lazy rather than sedated. I concluded that I had been tranquilized and attributed it to chlorpromazine.

My experience with 100 mg. of phenobarbital proved interesting. I knew I had been drugged. My notes refer to lethargy, a sense of inefficiency, and I found it hard to work. I felt confused by abstract relationships and did poorly on verbal tests. Feeling slightly bewildered at the time about what was happening to me, I concluded that the drug had been reserpine. In retrospect I am inclined to say that phenobarbital interfered physiologically with my ability to function without relaxing my aspirations and needs for mastery. The result was tension and some insult to my self-concept.

As for the stimulant drugs, I took 50 mg. and 100 mg. doses of iproniazid. On both days I experienced fleeting digestive tension as well as transient drowsiness—even an outright urge to go to sleep—which came and went abruptly. At times I was alert and even restless and caught myself tapping my foot in a meaningless way. On both days my mood was positive and my cognitive efficiency remained at the

placebo levels. I realized at the time that I had taken a drug. The episodes of drowsiness misled me to suspect a tranquilizer without much idea which one.

My one distinctly euphoric day came early in the series with 10 mgs. of dextroamphetamine. In less than an hour I felt stimulated, alert, and somewhat restless. It was a good feeling. I thought I was functioning well, felt imaginative and sociable. My notes are extensive. Time seemed to pass quickly. Actually I was not doing as well as I thought on scored measures of cognitive functioning. I was somewhat distractable. I recognized the stimulant qualities of the drug and called it iproniazid. I asked that this drug be repeated. The next experience with dextraamphetamine at 5 mg. produced a similar but more moderate reaction. I had a fine day and this time maintained placebo levels of cognitive efficiency. Again I attributed the effect to iproniazid. Later the 10 mg. dosage was repeated, but the euphoria failed to materialize. My impression was ambiguous. I experienced some early drowsiness mixed with autonomic tension and breathlessness and called the drug reserpine.

These observations of a relatively sophisticated observer exposed to one or two doses of a drug indicate some of the complexities that they present. These are a variety of responses to the same drug. There are, in addition, the uncertainties resulting from a lack of information as to what a continuous administration of a drug would do in the "normal subject." This, as indicated, is an exceedingly complex problem to evaluate, because there are at least two forces at play and their reactions to each other produce a third force. This is the metabolic effects of drug *per se* and the second the reaction of the personality structure to the effects of the feelings engendered by the drugs.

As compounds were found with specific psychotherapeutic effects, it was only natural that this could set off a series of investigations to develop more effective prototypes. The result has been as expected, a great number of compounds,

many of them of similar properties coming to roost on the shelves of the pharmacy. For example there are at least 20 phenothiazines, having as their prototype chlorpromazine, now available on the open drug market. As other categories of drug effects became available from the new compounds being synthesized, it was only natural to classify them on a rather empirical basis as (1) major tranquilizers, (2) minor tranquilizers, and (3) antidepressants.

### The Major Tranquilizers

The major tranquilizers are so defined primarily because of their anti-psychotic action (i.e., anti-delusional and anti-hallucinatory effect) and their sedative qualities. In this group we have the phenothiazines which include such drugs as Thorazine, Sparine, Trilafon, Stelazine, Permitil or Prolixin, and Vesprin to mention a few and the rauwolfia alkaloids, namely, reserpine, rescinnamine, and deserpidine. These newer compounds have shown changes in the direction of yielding more potent drugs with some tendency to produce less of the common complications associated with the previous drugs but have not brought about an increased therapeutic effect from that originally achieved.

Essentially, the effect of these drugs are on certain types of target symptomatology regardless of the diagnostic category. This is exemplified in the highly disturbed psychotic patient displaying signs of panic, hyperemotionalism, hyperirritability, hyperactivity, aggressiveness, explosive impulsivity, and other manifestations of a highly agitated state. The clinical data available, that are quite overwhelming, indicate that the phenothiazines act more quickly than the rauwolfia alkaloids, the former displaying a

significant effect within two weeks whereas the latter requires several weeks of administration before its effects are evident.

The use of these drugs over the past decade has indicated that there are certain types of psychotic patients who, having demonstrated a good response to the drugs, must be maintained on them. Controlled studies which are now available indicate that the incidence of return to a psychiatric hospital is approximately five to one when compared on the basis of the patients not receiving drugs to the ones being maintained. Many patients have now been on these drugs for several years without any observable ill effects such as withdrawal or physical dependency reactions or irreversible changes from the occasional neurological complications of these drugs. A rather interesting observation in this group of patients has been that many of these who have done well with this type of drug therapy offered the poorest prognosis from the standpoint of psychotherapy because of a very limited capacity for introspective thinking.

This is perhaps better illustrated by referring to investigations in which patients were subjected to intensive psychotherapy while receiving drug therapy. When the drug was withdrawn, the patients displayed a decompensation into their previous psychotic state indicating that the psychotherapy had not been able to achieve a buildup of sufficient ego strength within the patient to withstand the onslaughts of the psychopathology present. Fortunately, this is only a fraction of the patient population. In the area of the nonpsychotic patient, the psychopharmaceuticals can be utilized in conjunction with psychotherapy and have a definitive effect.

### The Minor Tranquilizers

In this category are those drugs used mainly for the treatment of minor emotional disorders or "nervousness," the outstanding symptom of which is usually anxiety or a state of apprehension. These are the drugs that are taking the place of phenobarbital. The reasons for this displacement are indicated from the experiences cited by Bennett, namely, that these compounds produce a relaxing effect without the clouding or dulling of the processes of mentation associated with the barbiturates and the associated striving for self mastery which can be productive of a great deal of tension.

Well known examples of this category of compound are meprobamate (Miltown or Equanil) and chlordiazepoxide (Librium). These compounds, while having a sedative action, have no detectable anti-psychotic effect and are utilized primarily as anxiety reducing agents. Chlordiazepoxide (Librium), a more recently introduced compound having a totally different chemical structure, has apparently extended the therapeutic spectrum to a range beyond merely anxiety relieving mechanisms, but has also displayed an effect on rage, phobias, and obsessive compulsive reactions. Patients who experience relief from the phobic feeling often reported that the fearful idea would occur occasionally, especially when they were confronted with the phobic object or situation, but that the accompanying affective and physical concomitants are considerably less severe. Patients who reported relief of their obsessive thinking sometimes continue to experience ideation phenomena without the affective component.

Each of these drugs, however, may have adverse behavioral effects. They may be withdrawal reactions in those

patients taking very high dosage of meprobamate over prolonged periods of time. The symptomatology displayed during such a withdrawal reaction is similar to a delirium tremens-like reaction. Evidence is beginning to appear that such reactions may also occur with Librium. There are indications that these compounds may also have toxic effects on the autonomic and central nervous system, and allergic reactions of one type or another.

One might consider as a subsection of this group the non-barbiturate sedatives and hypnotics which have come into increasing prominence. Some of these compounds will be recognized as Placidyl, Doriden, Noludar, Nostyn, Quiactin, and Trancopal. Pharmacologically these compounds produce sleep and in larger doses anesthesia. They differ from the propane-diols (Miltown or Equanil and Ultrán) in being able to abolish consciousness in doses which avoid paralysis of skeletal muscles. They also possess anti-convulsant action, and probably act by increasing the threshold of stimulation required for action of neurons. On a psychological level these compounds may increase extraversion in hyperexcitable, neurotic patients, and in this manner improve their adjustment to the environment.

### **The Antidepressant Drugs**

The antidepressant drugs present a fascinating story in themselves. It was not until 1933 that we had the first of the modern prototypes, namely, amphetamine. It is also of interest to realize that in the 27 years intervening since the introduction of this compound we still have relatively little information as to how it produces its effect. In 1957 it was noted that one of the drugs used in the treatment of tuberculosis patients

produced psychic changes, chiefly an elevation of mood which at times became so intense that it brought about a toxic psychosis. Although this drug, namely, Marsilid, used in the treatment of tuberculosis, was eventually discarded, it was found that in lower dosage it was effective in depressed patients.

Fortunately Marsilid's toxicity was not recognized before its antidepressant effect was unequivocally established. As indicated earlier, an effective drug always leads to a search for more potent and safer prototypes. Since its psychic effects were ascribed to its inhibition of brain monoamine oxidase, similar enzyme inhibitors were tested and found to be antidepressants; this led to the introduction of such drugs as Catron, Marplan, Nardil, and Niamid. Meanwhile, the search for improved tranquilizers led to the chance discovery that imipramine (Tofranil), a non-amine oxidase inhibitor, was also an effective antidepressant.

The use of these compounds in the treatment of depressive reactions has raised the question of their efficacy when compared with electroconvulsive therapy. It is now apparent that in the acutely suicidal patient there is still no substitute for convulsive therapy. Convulsive therapy will act more quickly than drug therapy in ameliorating the intensity of a suicidal drive as compared with the drug therapies which usually take from one to three weeks to generate a sufficient antidepressant effect to bring about significant impact on the patient's symptomatology. Sufficient clinical data have accumulated to indicate that if there is no significant response during this time to antidepressant drug therapy, the chances are there will not be any, even if the patient is changed over to another antidepressant drug. In those patients in

whom a response is obtained, the medication is usually continued for a period of six to twelve weeks.

In those types of depressions in which the drugs produce a good response, this only occurs in 60 to 75% of the cases. The drugs available effect target symptomatology rather than the underlying personality structure or the psychodynamic forces which have generated this intense, uncomfortable, affective state. The factors responsible for failure are as yet unknown. It should be emphasized at this point, although we speak in a matter of fact manner about depressions, we know relatively little about them. Depressions have been divided into diagnostic categories such as involuntional melancholias, manic depressive states, endogenous depressions, and other types. Diagnostic criteria vary and the standards of recovery are differently assessed. Quite frequently the depressions contain other psychopathological components such as paranoia, anxiety associated with states of agitation, or psychomotor excitation which complicate the treatment approaches.

As these categories of various types of antidepressants have been extensively used, an increasing body of information has accumulated concerning their complications. Ayd has stated that it is the nature of the complication which may well determine the category of antidepressant compounds that will ultimately be used in the chemotherapy of depression. It is now known that the monoamine oxidase inhibitors will potentiate opiates, atropine derivatives, barbiturates, ganglionic blocking agents, and corticosteroids. They enhance the hypotensive effect of the oral diuretic compounds, chlorothiazide and hydrochlorothiazide. They sensitize patients to the release of

histamine, to procaine and to general anesthetic agents. They are apt at times to precipitate a toxic confusional reaction. A therapist who uses a monoamine oxidase inhibitor cannot be casual about his ministrations to his depressed patients. He must insist on a very close supervision of his office patients. He must limit the number of tablets his prescription calls for, and not permit refills.

The clinician must be wary of substituting another antidepressant in the patient responding slowly to an amine oxidase inhibitor or combining it with another antidepressant with the hope of expediting recovery. This can be dangerous especially when an enzyme inhibitor is replaced by a non-amine oxidase inhibitor such as Elavil or Tofranil. This can bring about such reactions as severe dizziness, tremulousness, restlessness, excitability, visual hallucinations, profuse sweating, collapse, hyperpyrexia, and death. Because the effects of an amine oxidase inhibitor persist for some time after the medication is discontinued, it is necessary to allow at least a drug free interval of a week before a patient can be treated safely with Elavil or Tofranil.

These events have led to bringing about changes in the therapeutic strategy in the treatment of depressive reactions by administering such compounds as amitriptyline (Elavil) or Tofranil first in order to avoid having the patient unresponsive to the drug and the physician unable to place the patient on another type of antidepressant drug.

#### Comments

Having reviewed some of the clinical considerations which play a role in the use of many of the new psychopharmaceuticals, many considerations had to be left out because of the limitations im-



posed in this presentation. Some of these are the complications resulting from the use of these drugs on the various systems of the body. The extremely serious ones are agranulocytosis, liver atrophy, and sustained hypotensive episodes. Any of these states can result in death. Clinical comparisons of the various types of drugs and dosages, their rates of activity when compared to each other have not been discussed. The problem of poly pharmaceuticals, namely, those preparations that contain more than one psychoactive drug, has also to be briefly discussed and summarized in a statement. The poly pharmaceuticals are being widely used. Yet, I do not know of any controlled clinical studies which have indicated that the combinations have a significant degree of merit over the individual drugs.

Some of the directions our own research efforts in the state psychiatric hospitals in Maryland are taking are carefully controlled clinical studies comparing the clinical efficacy of the various phenothiazines and antidepressant compounds. There is a continuing program of investigating new drugs that come out of the psychopharmacological laboratories whose data suggest possible usefulness in the treatment of psychiatric patients.

I might add that a compound which turned out to be quite gratifying in its clinical achievement originated in Dr. Krantz's laboratory, namely, hexafluoro-diethyl ether, which has come to be called Indoklon. This compound was developed in a continuing search for more effective anesthetics by Dr. Krantz and his co-workers. It was found that Indoklon could be administered by inhalation and functioned as an anesthetic and a convulsant. Dr. Krantz, with great courage,

initiated its study as a possible substitute for electroconvulsive therapy. For several years this has been under study and found to compare with ECT in its therapeutic effects. One of the by-products of this research, however, has been the discovery that it can be utilized as a diagnostic activator for use in electroencephalography.

In closing I am taking the liberty of becoming somewhat philosophical and quoting from some comments made by Pollard and Bakker.

We know at the present time that it is almost impossible to apply to the human organism the findings obtained in animal experiences with psychoactive drugs. We often cannot transfer experience obtained with one patient to another. Even some of the theories using the terminology of energy changes in the brain do not really concern physiological factors. Rather, the energetic formulations are metaphors that simply cloak fundamentally psychological phenomena in the terminology of the physical world. It is, therefore, not surprising that we find many psychoanalytically oriented psychotherapists reluctant to use psychoactive drugs. Implicit in the use of drugs to influence behavior is the admission that a narrowly psychodynamic framework is insufficient. Man is not a body from which emanates a strange epiphenomenon called "mind," and man is not spiritual being with a material burden called "body." The real stagnation lies in the insufficiency of our conceptualizations.

Western European existentialist psychiatry devotes much attention to the problem of form versus content. The underlying assumption is that the disease processes makes a specific form of psychopathology possible (for example, the delusion) whereas the specific content of the delusion is dependent on the personal history of the patient. If we search the literature, we find that such attempts to separate form from content have resulted in a number of suggestions. Some of these are acceleration versus retardation; excitation versus paralysis; regulation or integration versus disintegration and disorganization; evolution in time; hypertonia versus hypotonia; level of psychological tension; vital mood; instincts; and rhythm of psychic life.

Freyhan, an experienced psychiatric clinician, perhaps best summarizes our present status:

The rapid discovery of psychoactive drugs has caught the medical profession in a dilemma of unpreparedness. But this holds equally true for scientists concerned with behavior. An expansion of conceptual fields and investigative techniques has been forced upon each specialty and discipline. As a result, we seem to pass through some temporary confusion of scientific identities. The pharmacologists, confronted with the complexities of assessing drug behavioral effects, have turned into experimental psychologists and psychopathologists. Psychiatrists, overwhelmed by the sudden intrusion of drugs, have turned into self-styled clinical pharmacologists or have dedicated themselves to the task of fitting psychoanalytical concepts into drug behavioral models. And experimental psychologists, sociologists, and biometricians have embarked on evaluating psychoactive compounds without the benefit of the historical knowledge of psychiatric treatment and its manifold theoretical implications. It is already quite apparent that no one can be productive in the field of psychopharmacology while holding on to the traditional methods or frames of references. The need for

multidisciplinary cooperation is, therefore, generally conceded.

Today we are beginning to see some of the results of this approach.

### References

- HUXLEY, ALDOUS: The History of Tension, *Ann. New York Acad. Sc.*, 67:675, 1957.
- BENNETT, CHESTER C.: The Drugs and I, *Drugs and Behavior*, edited by Uhr and Miller, 1960, John Wiley & Sons, New York.
- AYD, FRANK, J., JR.: A Critique of Anti-depressants, *Discuses of the Nervous System*, In Press.
- POLLARD, JOHN C. and BAKKER, CORNELIUS: What Does the Clinician Want to Know about Psychoactive Drugs?, *Drugs and Behavior*, edited by Uhr and Miller, 1960, John Wiley & Sons, New York.
- FREYHAN, FRITZ A.: Psychopharmacology and the Controversial Clinician, *Drugs and Behavior*, edited by Uhr and Miller, 1960, John Wiley & Sons, New York.
- KRANTZ, JOHN C., JR., ESQUIBEL, A., TRUITT, EDWARD B., JR., LING, ALFRED S. C., and KURLAND, ALBERT A.: Hexafluorodiethyl Ether (Indoklon)—An Inhalant Convulsant, *J.A.M.A.*, 618: March 29, 1958.

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### Editorial

## **The Electronic Medical Record**

THE CLINICIAN and medical investigator have been afforded, as a result of recent developments, a new instrument which can extend his capabilities and potentialities without limit. This is the electronic computer which is enabling the clinician and investigator to record medical data including practically all aspects of the history, physical examination, laboratory data, subspecialty examinations and treatment, exceeding both the hand written and typewritten record as to the amount of content, the capability of storage, and the feasibility of unlimited accessibility. The availability of a complete and accessible memory system portends to further the patient-doctor relationship through improved accessibility and understanding of the patient's record by the clinician, as well as opening up new frontiers of investigative medicine by making understandable complex data which could previously never have been recorded or retrieved for search and correlation.

The importance of team work between disciplines in medicine and associated sciences has been indicated by the accomplished results in using the electronic computer as a medical tool with the clinician or investigator working with a team of individuals capable of converting physiological processes into memory with suitable equipment, the latter, also, being utilized to interpret as desired by the physician, the medical data put into memory.

In general, the electronic computer can be either of analogue type, exemplified by the electrocardiograph, or the digital computer which utilizes digits or symbols to represent in-put of information. The analogue computer manipulates its in-put of data, such as the heart beat, into electrical current, which is then transformed into an ink graph, and can manipulate data into gauges, such as voltmeters, which interpret the changes in current. The digital computer accepts the in-put of its information, using digits or symbols for qualitative or quantitative processes, and changes these into electronic pulses which, by electrical manipulation, are put into memory or immediately analyzed.

By combining both the analogue and the digital computers with associated techniques a patient's lifetime medical record can be recorded on a number of feet or yards of magnetic tape, which will include much more data than could ever be recorded or retrieved from the written medical record. The history, the physical examination, the laboratory data, whether positive or negative, can be permanently

recorded for future use as well as for immediate use. Subsequent examinations by the physician are recorded by techniques already developed so that that particular visit and examination can be recorded into the person's lifetime magnetic tape record. In this manner work that has already been accomplished in this rapidly developing field permits the medical record to contain not only present interpretations of the physician and investigator, but also to contain the physiological and other basic data from which the interpretations were determined. Not only can interpretations be recorded for future evaluation, for example of descriptions and interpretations of heart sounds and electrocardiograph but also the actual heart sounds, the actual electrocardiograph and other aspects of continued patient monitoring. These can be retrieved at any time for re-evaluation and for serial observation. The work to date indicates that there may be no limit to the type of recording that can be made in the medical record with appropriate techniques as developed through an understanding interdisciplinary action of medical and nonmedical personnel. At the present time not only does the magnetic tape medical record offer unlimited electronic memory, but it offers an electronic recall and retrieval at any time at fantastic speeds for the physician to know about his patient or groups of patients. It permits any portion or all portions of the medical record to be searched and correlated for a particular purpose, and permits transposition of selected data onto separate tapes, whether a portion of the medical record or the whole medical record for the physician's use. For example, a magnetic tape memory can store on a reel 10 inches in diameter over 5,000,000 pieces of information, this information being read by the computer at a rate of 15,000 pieces of information per second. The printed medical record is obtained for the physician to read and for his use from the magnetic tape memory, utilizing the computer in conjunction with an electronic printer which transforms the electrical impulses in storage in the magnetic tape into printed sentences and descriptions at a rate of between 600 to 1,000 printed lines per minute.

At the present time the cost of developing these techniques is very high, and centers of interest throughout the country are determining the type of regional work which is developing this new frontier of electronic medical data processing. Because of a lack of trained personnel and of the tremendous financial cost in equipping and maintaining such, biomedical computer centers have been initiated along the lines of focus of interest and achievement. The first regional biomedical medical computer center has been recently established by the National Institute of Health at the Tulane University in conjunction with the Tulane University Medical School. It is to be expected that other regional centers will be developed throughout the country when other foci of interest develop. Such centers as that in New Orleans are connected with not only local and with statewide activity but also with interstate investigation throughout the country, affording interested groups the use of this type of equipment not otherwise possible. Such an example is by the University of Maryland Medical School Department of Psychiatry, working with the Tulane biomedical system and the qualitative and quantitative aspects of X-ray fluorescence of blood serum, which is being made through telephone communication between Tulane and Seattle, Washington.

From the aspects of the patient and of medicine, this is a new frontier. It affords the clinician, through an improved medical record, a better understanding of his patient and his response to treatment, and offers a marked extension in the art and science of medicine through an improved medical record. The retrievability and understanding through appropriate techniques of markedly complex medical data is something that has never been available to this time, and affords the investigator the opportunity of evaluating his procedures during the process of his investigation, saving him time and expense. The improvement in the standard and quality of the medical record offers medicine, through this technique, the opportunity to not only record the interpretations of the physician and investigator, but the remarkable privilege of re-evaluation at any time of the original data. The medical record, thus, at this time tends to become, through new tools, a scientific document with exciting potentialities in addition to its expression of the art of medicine.

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# Frequency Distribution Analysis of Heart Sounds

STEVEN J. BORSANYI, M.D., CYRUS L. BLANCHARD, M.D., and JOHN F. CARTER, M.A.

THERE ARE a great variety of audio-visual methods for the analysis of heart sounds. They can be valuable diagnostic adjuncts for the cardiologist. Audio-visual methods for displaying heart sounds are also being used in some institutions for the teaching of medical students.

The purpose of this paper is to comment on the frequency distribution analysis of normal and a selected group of pathologic heart sounds. We are not approaching the problem from the standpoint of the cardiologist. The method we are going to discuss is used in our department primarily for the analysis of the components of normal and various pathologic speech samples and also for the analysis of connected speech in diverse organic or functional speech defects. Furthermore, we would like to point out that there are other more advanced methods for the analysis of heart sounds.<sup>1,2</sup> For instance, with selective frequency analysis any desired portion of a heart sound can be analyzed. While frequency distribution analysis does not take into account the temporal relationship, the relative intensity, or characteristic frequencies of the various components of heart sound, but rather lumps the various components together and analyzes it as a continuous but characteristic noise.

A description of the sound qualities of this selected group of heart mur-

murs is also included. It is interesting to compare the clinician's description and the results of the frequency distribution analysis of the same heart sounds.

*Method:* Heart sounds are recorded on a four feet long tape-loop, then the tape-loop is played back continuously on an Ampex 601 tape recorder,  $7\frac{1}{2}$  i.p.s. The output of the tape recorder is connected to a Brüel & Kjör model 2111 Audio Frequency Spectrometer. The filter output of the Spectrometer is connected to a Brüel & Kjör Type 2304 Level Recorder which can graphically record the signal level variations within the frequency range of 20 to 31500 c/s. Writing speed used for the recording is 1 mm. per second. The Brüel & Kjör type QP3614 recording paper is used, in which the frequencies are marked along the ordinate while the intensity is pre-marked along the abscissa. Thus, the frequency distribution and the relative intensities of the various frequency components can be read immediately after the completion of the analysis. The time required for the analysis of a tape-loop is only two minutes. (Fig. 1) -

First illustration is normal heart sounds recorded at the apex. Description: The first sound has a booming, muscular quality as contrasted with the sharp, higher pitched second sound.

The graphical illustration of the frequency analysis shows the fundamental of this complex sound at 100 cps, 30 db above the arbitrarily selected 60 db

From the Division of Otolaryngology, University of Maryland, School of Medicine, Baltimore, Md.

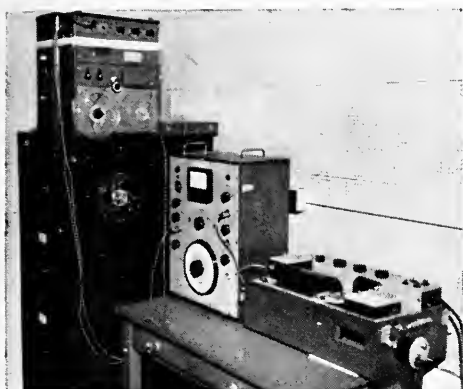


Fig. 1. Picture of the equipment. "A" is the Spectrometer, "B" is the sound level recorder.

threshold of the recording. The envelope of the curve rises sharply to this fundamental, then has a plateau up to 315 cps, which represents the second fundamental or a first harmonic of 160 cps component, then declines stepwise. (Fig. 2)

The second example is that of a gallop rhythm in a heart condition associated with failure. Description: This is a typical gallop rhythm characterized by an early diastolic third heart sound, the poor quality of the first sound, and the presence of a high-pitched systolic heart murmur.

Frequency distribution analysis shows a dome-shaped envelope of the curve with steady rise of the lower tones. The 100 cps and 125 cps tones are the highest intensity components. (Fig. 3)

The third illustration represents typical systolic and diastolic murmurs heard at the apex in patient with advanced mitral stenosis. Description of these heart sounds: There is a crescendo low-pitched presystolic rumble which emerges with a snapping first heart sound. The latter is followed immediately by a short, high-pitched blowing systolic murmur.

Frequency distribution analysis shows



Fig. 2. Graphical illustration of the spectrometric analysis of normal heart sound.

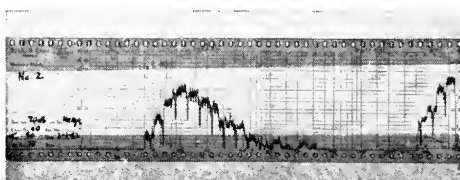


Fig. 3. Gallop rhythm in a heart condition associated with failure.

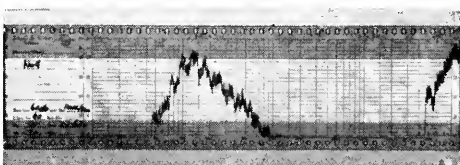


Fig. 4. Systolic and diastolic murmur recorded at the apex.

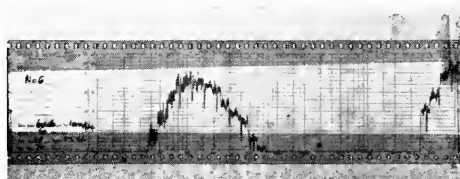


Fig. 5. Diastolic murmur at the aortic area.

a tent shaped envelope with a flat top between 100 cps and 200 cps, the peak at 160 cps, steady decline in intensity for the higher frequency. (Fig. 4)

The fourth illustration is a diastolic murmur at the aortic area. Description of the heart sound: The second sound is partially replaced by a diastolic murmur. It is of a blowing quality, high pitched and medium intensity.

The frequency distribution analysis shows again a dome-shaped envelope, however, different from the second illus-

tration. The highest intensity components are the 80, 100, and 125 cps. (Fig. 5)

*Summary and Conclusion:* These selected samples intend to show that the results of frequency distribution analysis of normal and pathologic heart sounds are different. Because of the limitations of this technique, we do not advocate the use of it for research since more advanced techniques are also available. However, currently we are engaged in the process of analyzing larger number of patients with normal heart sounds and with various heart murmurs in order to determine if a definite pattern could be recognized for the frequency distribution analysis curve for both the normal and the pathologic heart sounds. If a definite pattern can be established for the normal heart sound, then this technique or an

improved version of it might be utilized for screening of large numbers of individuals by a technician who could record the heart sounds on tape. The spectrometric analysis of the tape takes only about two minutes per patient. Those patients whose heart sounds show any deviation during spectrometric analysis from the normal pattern could be separated. These patients then would be given special attention in their workup by the cardiologist.

#### References

1. LUISADA, A. A., RICHMOND, L., and ARVANIS, C.: Selective Phonocardiography, *Amer. Heart J.*, 51:221, 1956.
2. McKusick, V. A.: Spectral Phonocardiography; Current Status as a Research, Clinical, and Teaching Tool. *Circulation*, 12:744, 1955.



# The Use of Radiopaque Emboli in Experimental Pulmonary Embolism

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and GEORGE H. YEAGER, M.D.\*\*

## I. Introduction

THE RECENT successful application of cardiopulmonary bypass in the treatment of life threatening pulmonary embolism has revived interest in emergency therapy for this condition. Because pulmonary embolism strikes suddenly, dramatically, and unexpectedly, any experimental preparation that reliably reproduces this condition merits study. The technique of radiopaque emboli not only simulates lethal and nonlethal pulmonary embolism in the dog but provides a visual means which readily lends itself to long term follow-up (Figs. 1, 2).

As radiopacity diminishes, the amount of clot remaining in the lung can be correlated with improvement of the animal.

Previously, Shingleton<sup>1</sup> mixed barium with blood and introduced the radiopaque clots into the blood stream. Boyles<sup>2</sup> and Allison<sup>3</sup> used propylidone (hereafter referred to as Dionosil†) for the same purpose. However, previous methods of inserting the emboli gave somewhat unsatisfactory results and attempts to quantitate the dose given and correlate it with survival have been generally unsuccessful.

With the technique to be described, the dose administered is readily quantitated and easily introduced.

## II. Method

Unselected mongrel dogs were studied. Both barium and Dionosil yielded clots of satisfactory radiopacity. Barium mixes well with blood and is inexpensive and readily sterilized (Fig. 3). Dionosil is very viscous and more difficult to mix. Strict sterile precautions, observed throughout, permit long term observations without the complications of infection.

Radiopaque clots are best made in 10 cc. aliquots. For this purpose 3.3 Gm. of barium or 5 cc. of Dionosil are placed in a large test tube and 10 cc. of blood are added. Thorough mixing and rapid transfer to large 410 or 430 polyethylene tubing permits clotting inside the tubing. The length of the clot can be altered by adding more radiopaque mixture to the tubing or by cutting off excess clot prior to its introduction. Before transfer of the unclotted mixture, one end of the tubing is flame sealed. After clotting occurs, penicillin and streptomycin are added to protect against infection. Heat seals the open end. Storage in the refrigerator permits production of these clots one day and embolization another.

Insertion of these clots can be done after a simple cutdown. The external jugular vein serves best for this purpose. Procaine (1%) relaxes the vein wall, the tubing is inserted, and gentle saline under slight pressure is injected into the tubing. This forces the clot into the circulation and because of their radiopacity,

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Figs. 1, 2. This dog received a nonlethal dose of radiopaque emboli formed by mixing barium and blood. Initial emboli reach the lower lobes first, then fill the upper lobe arteries.

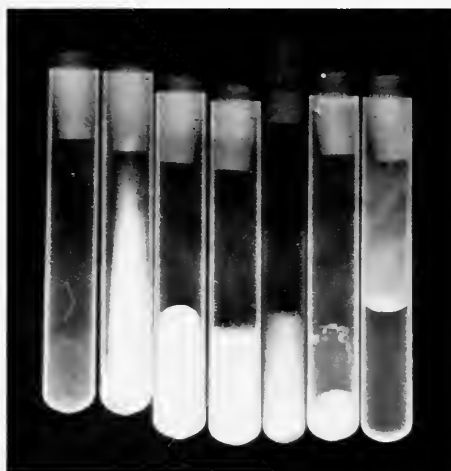


Fig. 3. Varying concentrations of barium were mixed with blood in vitro during the original screening studies to find an adequate radiopaque substance which could permit production of radiopaque emboli. A concentration of approximately 33% of barium to blood was found best for producing smooth clots of acceptable radiopacity.

their trajectory can be followed with cineangiography or serial x-rays (Figs. 4, 5, 6).

Post mortem radiographs demonstrate effectively the degree of embolization that becomes possible using this technique.

Occlusion of very minute vessels occurs, as shown in Fig. 7.

### III. Dosage

The amount of radiopaque clot in cc./kg. to cause death or permit survival has been estimated. Death usually results after injection of an average 1.3 cc./kg. The presence or absence of a respirator did not alter the lethal dose. A total of 2.3 cc./kg. of non-barium blood clots, introduced by the same method, was also lethal. This difference probably reflects changes in volume after addition of barium. A dose of 0.7 cc./kg. or less will permit survival of most dogs. In-

Table I. Comparison of Average Amounts of Clot Introduced as Pulmonary Emboli

	No. Dogs	No. Clots	Weight Kg.	Total Dose cc./Kg.
Lethal Barium Clots (on respirator).....	12	2	14	1.3
Non Lethal Barium Clots.....	9	1	15	0.5
Lethal Non Barium Clots.....	8	3	13	2.3
Lethal Barium Clots (no respirator).....	4	1	14	1.3



Figs. 4, 5. The use of a rapid film changer permits visualization of the trajectory of radiopaque emboli. Fig. 4 shows two clots, one marked by the arrow and the other behind the bulldog clamp, early after insertion. Fig. 5 reveals one clot in the lung while the other remains in the heart. Eventually both reached the lungs.

dividual variability occasionally demands a higher or lower dosage (Table I).

Although radiopaque clots are more fragile than ordinary clots, they are usu-

ally sufficiently firm to preserve their form even after reaching the lungs.



Fig. 6 shows that these clots have disappeared 4 days after insertion.



Fig. 7. Postmortem radiograph showing extensive embolization of the pulmonary arteries.

Table II. Average values obtained in mongrel dogs embolized with radiopaque clots in divided doses. Changes in arterial and venous oxygen saturation ( $SO_{2a}$ ,  $SO_{2v}$ ); carbon dioxide content ( $Cco_{2a}$ ,  $Cco_{2v}$ ), pH can be appreciated. Changes in right ventricular pressure, arterial pressure and central venous pressures are depicted. Pressures were measured electronically and given in mm Hg.

	$SO_{2a}$	$SO_{2v}$	$Cco_{2a}$	$Cco_{2v}$	Hct.a	Hct.v	pH a	pH v	RVP	AP	CVP
BASELINE.....	96	66	31	37	40	42	7.42	7.36	41/8	169/126	5
POST CLOT.....	82	37	37	43	46	46	7.33	7.26	99/18	126/89	9
*1											
POST CLOT.....	68	34	33	43	49	47	7.29	7.25	105/25	57/40	18
*2											

Cineangiography reveals this quite clearly.

becomes very distinct terminally. Near death, bradycardia ensues.

### Results

The severity and rapidity with which the lesser circulation is obstructed determines the alterations observed. The following acute changes can be consistently noted after embolization with radiopaque clots (Table II):

1. Both arterial and venous oxygen saturations fall progressively.

2. The arteriovenous oxygen saturation difference widens. Carbon dioxide was controlled by the respirator.

3. A decreasing pH evidences the resulting metabolic acidosis.

4. The right ventricular pressure rises sharply after initial embolization but if additional emboli are given the increase is less.

5. Arterial pressure decreases progressively after each embolus, depending on the size of the radiopaque clot.

6. Central venous pressure rises especially near death, reflecting also the inability of the right ventricle to overcome the pulmonary artery obstruction.

7. The electrocardiogram reveals multiple premature ventricular contractions which progress to ventricular tachycardia, especially near death. The amplitude of the P wave increases and the observed ST depression persists until it

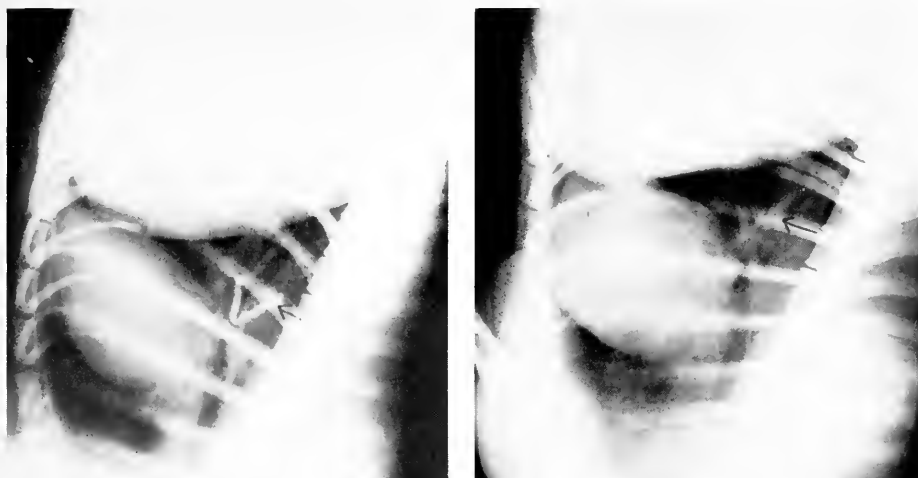
### IV. Discussion

It is recognized that the exact syndrome of pulmonary embolism as it occurs in man cannot be reproduced in the experimental animal with true fidelity. However, the present technique reproduces faithfully many aspects of the problem of pulmonary embolism. This has been found useful.

Multiple advantages accrue from incorporating the use of polyethylene tubing in producing the radiopaque clots. Storage under sterile conditions, quantitation of the dose administered, and simplified insertion becomes possible. The size of the clot can be varied at will. Smaller polyethylene tubing allows the study of smaller animals.

Allison observed progressive decreasing radiopacity during the first few days after insertion of the emboli. This process occurred because of rapid organization of the clots. Our experiments confirmed Allison's findings. The rapidity with which the pulmonary artery obstruction is cleared surprised us (Figs. 8, 9).

Although radiopaque clots disappear from the lungs in three to four days, and sometimes less, they persist in the peripheral circulation for seven to ten days when placed in a vein which has been tied off distally. This suggests that addi-



Figs. 8, 9. These radiographs reveal the fate of a radiopaque Dionosil clot. Fig. 8 shows it at the time of insertion, whereas Fig. 9 reveals the considerable decrease in radiopacity 3 days later. The dog received no therapy and did not show clinical signs of infarction.

tional factors are important in determining the fate of pulmonary emboli as compared to peripheral emboli.

One important therapeutic aspect is already under our study. Cardiopulmonary by-pass permitted removal of these emboli. The efficiency of embolectomy is clearly shown by the amount of remaining radiopacity.

In short, this technique reproduces many changes known to occur after pulmonary embolism. Its intelligent application should aid in the study of pulmonary embolism, a condition which gains daily importance.

### Summary

1. Radiopaque clots readily result by mixing barium or Dionosil with blood. Using polyethylene tubing, they can be stored, easily introduced into the circulation, and easily quantitated as to dose.

2. This technique reproduces in the dog many changes known to occur after pulmonary embolism in humans. Oxygen saturation falls progressively and a de-

creasing pH betrays the existing metabolic acidosis after insertion. Right ventricular pressure increases and systemic arterial pressure decreases as progressive obstruction of the pulmonary artery occurs. An elevated central venous pressure also points to the failing right heart.

### Acknowledgements

Special mention must be made of the aid provided by the Radiology Department, especially Dr. Robert Boudreau, Mr. Elroy Barnes, and Miss Rose Marie Cacciola. Dr. Luis Gonzales read the electrocardiograms.

The technical aid of Miss Elizabeth Scanlon, B.S., M.S., Luther Leibensperger, Dorothy Suter, and Thomas Norwood, B.A., is gratefully acknowledged.

### References

1. SHINGLETON, W. W., ANLYAN, W. G., NEILL, K. C.: Studies on Lysis of Experimental Pulmonary Embolism Using Trypsin, *Surgery*, **34**:501, 1953.
2. BOYLES, P. W.: A Method for the Induction of Segmental Radiopaque Blood Clots, *Amer. J. Clin. Path.*, **30**:423, 1958.
3. ALLISON, P. R., DUNNILL, M. S., MARSHALL, R.: Pulmonary Embolism, *Thorax*, **15**:273, 1960.

# A Compact Transistorized Nerve Stimulator

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MANY FIELDS of surgery require the use of electrical stimulation in order to determine the location of excitable tissue. Both nerves and muscles are easily stimulated by square wave electrical impulses. In some surgical fields such as oncology, neurosurgery, traumatic surgery, orthopedic and plastic surgery, electrical stimulation is required to locate nerve tissue in order to avoid surgical injury of these structures.

Parotid gland surgery (which is in close proximity to the main facial nerve trunk and its branches) requires careful dissection, otherwise permanent paralysis of facial muscles might result because of injury to the facial nerve. In this application, the stimulus is applied; and if a twitching of the lips or eyelids occurs, the surgeon knows that he is close to a nerve. By carefully moving the probe electrodes, the surgeon can easily detect and avoid injury to facial nerves.

In surgical cases where scar tissue must be separated from nerves, or exposed nerves associated with tendon injuries, the electrical stimulator can be used as an efficient surgical instrument.

*The Nerve Finder:* The nerve-muscle stimulator is a compact transistorized pulse generator. The exponential AC wave of the instrument produces an effective stimulation with a minimum of current flow.

The alternating current wave produces a tetanic contraction of the muscle when the electrodes contact the muscle directly or makes contact with its respective nerve.

*The Probe Attachment:* The electrical stimulus is delivered to the tissue through an eight foot sterilized flexible cord attached to a probe. The current can be concentrated in pin point areas or in wider fields merely by rotating the probe. The pointed ends of the probe can be spread for increased stimulation. Minimum stimulation occurs at the probe tips, while maximum occurs on the flat areas. Figure 1 shows the switch assembly and probe. The plastic probe contains stainless steel tips with epoxy filler. A lamp indicator in the probe denotes the On operation. The lamp dims out as contact is made to tissue. Figure 2 summarizes the output voltages on both the top and flat regions.

The entire electronic generator is encapsulated in epoxy resin so as to secure it against moisture and mechanical damage. No adjustment controls are required for its operation. A simple foot switch measuring about 2" x 3" is placed on the floor where it can be operated by the surgeon's foot. Normally the instrument is off and it is activated by merely stepping on the pad. Other than the sterilizable cable, which may be clamped to the operating table linen, no wires are present as the power source is self-contained, thus eliminating power source cables. The battery, encapsulated generator, and

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Fig. 1. Switch case and probe assembly.

switch are shown in Figure 3. Various types of probes may be plugged into the jack.

*Power Source.* The instrument is powered by a long life, 9.0 volt battery (mercury) which is enclosed in the foot switch housing. Batteries as small as 1.25 volts may be used for low stimulating voltages.

The generator produces a wave of 60

to 70 cycles per second. This frequency has been found to be effective for tissue stimulation. The 9.0 volt battery produces 300 volts of stimulus when the probe is not contacting tissue. The voltage drops to 60 volts and less when in direct contact with tissue. The amount of shock is also reduced by 50% when using the probe tips only.

The total battery drain during the time

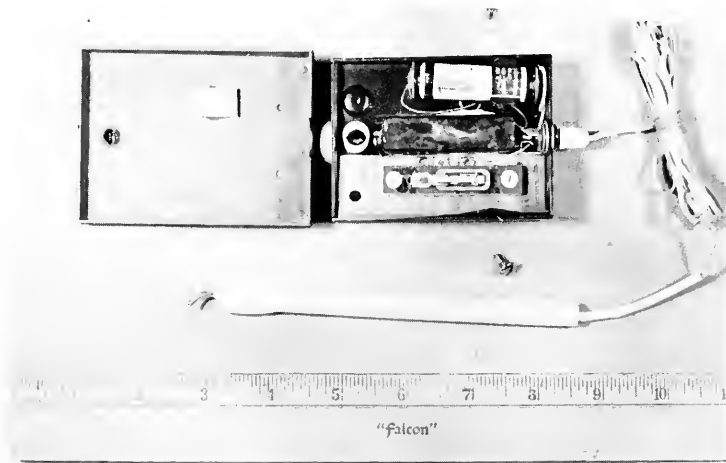


Fig. 3. Internal assembly.

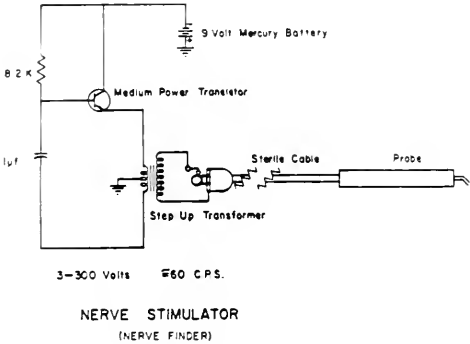


Fig. 4. Nerve finder circuit diagram.

that the instrument is operating is less than 3 milliamperes. The battery should be changed every 12 months as a preventative measure. The circuit diagram of the nerve finder is shown in Figure 4.

The nerve finder has been used quite successfully for parotid gland surgery and was found to be a simple and efficient instrument in this field.

The following table summarizes the operation of the Nerve Finder.

It should be noticed that the voltage is self adjusting to the tissue in which it is in contact.

Fig. 2. Output voltages.

Battery	Frequency CPS	No Load Voltage	Wet Skin Voltage		Muscle or Nerve Voltage
			Flat	Dry	
9	67	300	100	200	6-9
5.5	60	200	50	100	3-5
4.5	50	180	45	80	2-4
2.5	40	120	30	60	1-3

While the voltage on the flat portion of the electrodes is lower, the shock is more intense.

General surgery usually requires the 9 volt battery supply, while neurosurgery may well use a 2.5 volt battery.

The authors wish to acknowledge the help of Safou Attar, M.D. and Mr. Avrum Tamres.



# Herellea (Mimeae) Sepsis

MARVIN S. PLATT, M.D. and ERNEY MAHER, M.D.

ORGANISMS which appear infrequently in culture specimens are often passed over, presumed to be contaminants, or identified erroneously. Until recently, such has been the case with the Mimeae tribe. The true frequency and pathogenicity of these organisms are not yet known.

It has been demonstrated that patients with leukemia, treated with steroids and antimetabolites, may develop a variety of complications due to the suppressive action of these drugs upon normal host responses. Perhaps some of these patients fall prey to organisms which would be innocuous to healthy individuals. A somewhat parallel situation exists in debilitated premature infants who may develop fulminant infections from *Achromobacter*,<sup>1</sup> *Flavobacteria*,<sup>2,3</sup> or *Pneumocystis carinii*.<sup>4</sup>

The following is a report of a patient with acute lymphocytic leukemia who apparently died of sepsis due to a Mimeae organism, *Herellea*. A review of the literature suggests that this Mimeae tribe may account for more infectious disease than is generally recognized.

## Case Report

D. J., a six-year-old, white, male child was admitted to the University of Maryland Hospital on May 6th, 1960, because of petechiae, fever, and lethargy. Physical examination revealed pallor, hepatosplenomegaly, and generalized lymphadenopathy. The initial white blood count was 120,000 per cubic millimeter. A diagnosis of acute lymphocytic leukemia was established by bone marrow aspiration. Blood

cultures were negative on admission. An early clinical and hematologic response to prednisone therapy was obtained. However, after four weeks of prednisone and amethopterin therapy, evidence of hematologic relapse occurred. Large doses of prednisone failed to improve the situation, and a trial of Vincetuberculin sulfate was begun during the 7th week of hospitalization. This drug was continued intermittently throughout the hospital course, with severe aplastic crises complicating its usage.

During the 11th week of hospitalization, the patient was noted to be increasingly febrile and tachypneic. Radiograms of the chest revealed bilateral hazy infiltrations with suggestive pneumatoceles. Again, there was no growth on blood culture. The patient was placed on digitalis and chloramphenicol, 100 mg./kg./day. However, dyspnea and prostration increased and the child expired during the 12th week of hospitalization. Permission for a post-mortem examination was denied. A blood culture obtained on the day before death revealed a suspicious gram negative organism. This was identified as an *Herellea* strain by the Maryland State Department of Health Laboratories on the basis of microscopic and colony appearance and biochemical reactions (Table 1). The disc sensitivities for this organism revealed resistance to penicillin, slight sensitivity to chloramphenicol, full sensitivity to the tetracycline drugs.

## Discussion

*Herellea* is one of the three genera belonging to the tribe Mimeae which at present is included in the appendix of the family Parvobacteriaceae. One member genus, *Colloides*, has not been identified since the original report 20 years ago. The classification<sup>5</sup> of the Mimeae is as follows:

Family—Parvobacteriaceae

Tribe—Mimeae

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Genera—Mima

Mima polymorpha

Mima polymorpha var. oxidans

Herellea

Herellea vaginicola

Colloides

Colloides anoxydant

In 1939,<sup>6</sup> and again in 1943,<sup>7</sup> Debord showed that this tribe of organisms may be easily mistaken for *Neisseria*, *Hemophilus*, or weakly gram-positive staining streptococci. The characteristics of each genus are charted in Table 1. It can be noted that the appearance of these organisms on smear may be similar to the *Neisseria* and *Hemophilus* organisms. Biochemical and occasionally serological methods are necessary to differentiate

them. These Mimeae may cause disease entities similar to the infections they mimic on smear. Debord<sup>7</sup> found that 40% of neonatal conjunctivitis was due to *Mima polymorpha*. A gram-stain smear could not distinguish this organism from *Neisseria gonorrhoea*. However, on biochemical study, no growth was noted in glucose as would be expected with *N. gonorrhoea*.

Similar confusion may arise from cases of vaginitis or urethritis. Gangarosa and Cary<sup>8</sup> recently postulated that some cases of penicillin-resistant gonorrhea were likely due to unrecognized infections with species of the tribe Mimeae, rather than to the development of penicillin-resistant gonococci. A recent study by Svihus *et al.*<sup>9</sup> lends strong support

TABLE I  
RELATIONSHIP OF MIMEAE TO OTHER PATHOGENS

ORGANISM	CHARACTERISTICS	COLONY	OXIDASE	CHO FERMENTATION										METHYL RED	Voges - PR	CITRATE	INDOL	NITRATES	CATALASE	10% GOR	AEROBIC
				GLUCOSE	MALTOSE	SUCROSE	MANNITOL	GALACTOSE	XYLOSE	ARABINOSE	LACTOSE 1%	LACTOSE 10%									
MIMA POLYMORPHA	PLEOMORPHIC ENCAPSULATED, NONENCAP NON SPORULATING NON MOTILE, MOTILE GRAM NEGATIVE, OCCASIONALLY GRAM POSITIVE DIPLOCOCCI IN SOLID MEDIA RODS IN LIQUID MEDIA BIPOLAR STAINING LUX GROWTH IN BROTH, MEAT EXTRACT, CHOC AGAR	WHITE GLISTENING SMOOTH VISCID NO HEMOLYSIS	NEG EXC W.P. VAR OXIDANS	0	0	0	0	0	0	0	0	+	0	0	0	0	0	0	+	+	+
HERELLEA VAGINICOLA	SAME, ENCAPSULATED	SAME	D	A	0	0	0	A	A	A	0	+	0	0	+	0	0	+	+	+	+
COLLOIDES ANOXYDANA	SAME	SAME	0	AG	AG	0	AG				AG	AG	+	0	+	+	+	+	+	+	+
ORGANISM FROM PATIENT	SAME	SAME	0	A	0	0	0	-	A	A	0	-	0	-	+	0	0	+	-	+	+
NEISSERIA GONORRHOEA	DIPLOCOCCAL INTRA AND EXTRACELLULAR GRAM NEGATIVE NON SPORULATING NON MOTILE NON CAPSULATED	ROUND SMOOTH WHITE	+	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+	+	+
NEISSERIA INTRACELLULARIS	DIPLOCOCCAL INTRA AND EXTRACELLULAR NON MOTILE NON SPORULATING ENCAPSULATED GRAM NEGATIVE	SMOOTH GREY	+	A	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+	+
HEMOPHILUS INFLUENZAE	PLEOMORPHIC ENCAPSULATED NON MOTILE, NON SPOR. GRAM NEGATIVE	COLORLESS	0	A	0	0	0	0	0	0	0	0	0	0	0	0	+	+	+	+	+

0—NO REACTION OR GROWTH OCCURS

A—FORMS ACID

+ + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

G—FORMS GAS

to this hypothesis by demonstrating that all of their 18 cases of penicillin-resistant gonorrhea were due to infections with *Mimeae*.

Townsend *et al.*<sup>10</sup> have reported two patients with *Mima polymorpha* meningitis who presented with petechiae. One patient expired and showed adrenal hemorrhage on postmortem examination. Recently, other authors<sup>11-15</sup> have reported cases of *Mima* meningitis and stressed the importance of distinguishing this organism from *Neisseria intracellularis*. DeTorregrosa and Ortiz<sup>16</sup> have reported three cases of meningitis and two cases of sepsis due to *M. polymorpha*. Three of these patients were infants under 10 days of age, demonstrating the susceptibility of the newborn to uncommon infections. A case of fulminating septicemia due to *Mima polymorpha* in a 52-year-old male was reported by Faust and Hood.<sup>17</sup> This patient also presented with petechiae, but at autopsy the adrenal glands were normal.

Several authors<sup>18-21</sup> have reported isolated cases of sepsis due to *Herellea* organisms. *Bacterium anitratum* and *B<sub>5</sub> W* are apparently similar or identical strains of the genus. DeTorregrosa and Ortiz<sup>16</sup> have recently added two new cases of *Herellea* sepsis, one of which was associated with osteomyelitis in a 6-month-old infant. Other authors have reported *Herellea* bacteremia in acute bacterial endocarditis,<sup>18</sup> and chronic synovitis.<sup>22</sup>

*Herellea* may be confused with *Neisseria* gonorrhea on gram stain and glucose fermentation, but a negative oxidase reaction distinguishes it from *Neisseria*. The importance of making an accurate, prompt diagnosis and initiating appropriate antibiotic therapy is emphasized by the high mortality and the generally

greater resistance to antibiotics of the *Mimeae* tribe. Reviews by several authors<sup>11, 19, 20, 23</sup> have pointed out that the *Mimeae* are usually resistant to penicillin, streptomycin, and chloramphenicol, but often sensitive to the tetracycline derivatives. Table 2 summarizes the antibiotic sensitivity reports of Svihus *et al.*<sup>9</sup> and Brooke.<sup>19</sup> Familiarity with these organisms assists the physician in selecting an appropriate drug while awaiting sensitivity studies.

**Table II. Antibiotic Sensitivity of *Mimeae***

Drug	MIMA POLY- MORPHA* (16 Strains)	HERELLEA** (86 Strains)
	Percent Sensitive	Percent Sensitive
Penicillin . . . . .	12.5	1.2
Chloramphenicol . . . .	56.0	7.0
Streptomycin . . . . .	31.0	64.0
Chlortetracycline . . . .	68.5	95.0
Oxytetracycline . . . . .	68.5	94.0
Sulfathiazole . . . . .	...	17.0
Erythromycin . . . . .	75.0	...

\*From Svihus *et al.*, 1961.

\*\*From Brooke, M.S., 1951.

Members of the tribe *Mimeae* were not included in the 7th edition of *Bergey's Manual*.<sup>24</sup> The characteristics of these organisms may be found in the 6th edition. The current literature seems to provide ample reason for again including them in the next edition.

It is hoped that this report will encourage physicians to evaluate carefully the agents isolated from cases of septicemia, meningitis, and conjunctivitis. The fallibility of diagnosis by gram stain alone has been discussed.

### Summary

A case of sepsis due to *Herellea* has been presented. Bacteriologic characteristics of this organism and other members of its tribe, *Mimeae*, have been compared, and similarities between these organisms

and other common pathogens have been noted. The methods of differentiation and reasons for differentiation have been stressed.

The authors gratefully acknowledge the assistance of Dr. Joseph Josephs in preparing this report, as well as the thoughtful counsel of Dr. J. Edmund Bradley and Dr. Eugene Gangarosa.

# References

1. FOLEY, J. F., GRAVELLE, C. R., ENGELHORD, W. E., and CHIN, T. D. Y.: Archromobacter Septicemia—Fatalities in Prematures. *A.M.A.J. Dis. Child.*, **101**:279, 1961.
2. CABRERA, H. A. and DAVIS, G. H.: Epidemic Meningitis of the Newborn Caused by Flavobacteria—Epidemiology and Bacteriology. *A.M.A.J. Dis. Child.*, **101**:289, 1961.
3. GEORGE, R. M., COCHRAN, C. P., and WHEELER, W. E.: Epidemic Meningitis of the Newborn Caused by Flavobacteria—Clinical Manifestations and Treatment. *A.M.A.J. Dis. Child.*, **101**:296, 1961.
4. GAJDUSEK, D. C.: Pneumocystis Carinii—Etiologic Agent of Interstitial Plasma Cell Pneumonia of the Premature and Young Infants. *Pediatrics*, **19**:543, 1957.
5. *Bergey's Manual of Determinative Bacteriology*. 6th Ed., Williams and Wilkins Co., Baltimore, 1948, p. 595.
6. DEBORD, G. G.: Organisms Invalidating the Diagnosis of Gonorrhea by the Smear Method. *J. Bact.*, **38**:119, 1939.
7. DEBORD, G. G.: Species of Tribes Mimeae, Neissericae, and Streptococcaceae, Which Confuse the Diagnosis of Gonorrhea by Smears. *J. Lab. Clin. Med.*, **28**:710, 1943.
8. GANGAROSA, E. J. and CARY, S. G.: Validity of Reports of Penicillin—Resistant Gonococci. *J.A.M.A.*, **173**:1808, 1960.
9. SVIHUS, R. H., LUCERO, E. M., MIKOLAJCZYK, R. J., and CARTER, E. E.: Gonorrhea-like Syndrome Caused by Penicillin—Resistant Mimeae. *J.A.M.A.*, **177**:121, 1961.
10. TOWSEND, F. M., HERSEY, D. F., and WILSON, F. W.: Mima Polymorpha as a Causative Agent in the Waterhouse—Friderichsen Syndrome. *U.S. Armed Forces M.J.*, **5**:673, 1954.
11. WAITE, C. J. and KLINE, A. M.: Mima Polymorpha Meningitis. *A.M.A.J. Dis. Child.*, **98**:379, 1959.
12. DEBORD, G. G.: Mima Polymorpha in Meningitis. *J. Bact.*, **55**:764, 1948.
13. OLAFSON, M., LEE, Y. C. and ALBERNATHY, J. F.: Mima Polymorpha Meningitis. *New Eng. J. Med.*, **258**:465, 1958.
14. SCHULDBERG, I. I.: Clinical and Pathologic Simulation of Meningococcic Meningitis: Report of a Case with Necropsy. *Amer. J. Clin. Path.*, **23**:1024, 1953.
15. FRED, H. L., ALLEN, T. D., HASSEL, H. L., and HOLTZAMN, C. F.: Meningitis due to Mima Polymorpha. *A.M.A. Arch. Intern. Med.*, **102**:204, 1958.
16. DETORREGROSA, M. V. and ORTIZ, A.: Severe Infections in Children due to Rare Gram-negative Bacilli: (Mima Polymorpha and Bacillus Anitratum). *J. Pediat.*, **59**:35, 1961.
17. FAUST, J. and HOOD, M.: Fulminating Septicemia Caused by Mima Polymorpha. *Amer. J. Clin. Path.*, **19**:1143, 1949.
18. SORRELL, W. B. and WHITE, L. V.: Acute Bacterial Endocarditis Caused by a Variant of the Genus Herellea. *Amer. J. Clin. Path.*, **23**:134, 1953.
19. BROOKE, M. S.: Occurrence of B5W (B. anitratum) Strains in Denmark. *Acta. Path. Microbiol. Scand.*, **28**:338, 1951.
20. SCHAUB, I. G. and HAUBER, F. D.: A Biochemical and Serological Study of a Group of Identical Unidentifiable Gram-negative Bacilli from Human Sources. *J. Bact.*, **56**:379, 1948.
21. SCOTT, E. G. and MAHANEY, B. A.: Occurrence of Members of Tribe Mimeae in Human Infections. *Delaware Med. J.*, **25**:22, 1953.
22. INO, J. and NEUGEBAUER, D. C.: Isolation of a Species of Genus Herellea from a Patient with Chronic Synovitis. *Amer. J. Clin. Path.*, **26**:1486, 1956.
23. BROOKS, B. E. and SANDERS, A. C.: Unidentified Gram-Negative Rods in the Tribe Mimeae. *U.S. Armed Forces M.J.*, **5**:667, 1954.
24. *Bergey's Manual of Determinative Bacteriology*, 7th Ed., Williams and Wilkins Co., Baltimore, 1957.

# The Management of Acute Salicylate Intoxication

## A Review

CHRIS P. TOUNTAS\*

THE COMPLEX metabolic changes and diverse electrolyte imbalances of acute salicylism often test the acumen of the clinician. It will be the object of this paper to review and to discuss briefly the management and biochemical alterations encountered in acute salicylate intoxication.

Salicylates are most commonly available as pleasant tasting 75 mg. tablets of acetylsalicylic acid. Less common sources include methyl salicylate or oil of wintergreen and sodium salicylate.

Gallaher (1852)<sup>1</sup> and Beck (1859),<sup>2</sup> in reporting some of the earliest cases of salicylate poisoning, cited oil of wintergreen as the intoxicant. It was not until 1874 that Kolbe first synthesized acetylsalicylic acid and still years later before this compound was accepted widely.<sup>3</sup>

The amount of salicylate available from children's and adult's aspirin tablets is commonly known; it is the amount available from oil of wintergreen that may need clarification. With a specific gravity of 1.2 (one teaspoon holds 5 ml.) and with a content not less than 98% methyl salicylate,<sup>4</sup> one teaspoon represents the salicylate content of sixty-nine 75 mg. aspirin tablets.

The clinical picture of the patient with acute salicylism is well documented and sequentially involves: hyperpnea; tinnitus; vomiting; sweating; flushing of the

skin; fever; dehydration; initial polyuria followed by oliguria; bleeding from the nose, gastrointestinal tract, or into the skin; disorientation; acute pulmonary edema; convulsions; and coma.<sup>5</sup> The vomitus may contain the orange dye incorporated into the children's 75 mg. aspirin tablets or the odor characteristic of wintergreen oil will predominate in the event of methyl salicylate intoxication.

The question of labeling a dose of salicylate as "toxic" appears to be one of individuality. The ingestion of a 5 gr. aspirin tablet was the cause of death of a 45-year-old woman as reported by Dy-sart.<sup>6</sup> The lowest recorded lethal dose of methyl salicylate in a review of the literature was 4 ml. in a 17-month-old infant.<sup>7</sup> In a review of varied cases of methyl salicylate poisoning, it was found that the toxic dose varied from 4 to 60 ml.<sup>8-21</sup>

It has been reported that greater than 0.15 Gm./Kg. of salicylate constitutes a toxic dose<sup>22, 23</sup> and that serum levels of between 3 and 40 mg. per cent are clinically significant.<sup>5, 22, 24</sup> Studies conducted by Done,<sup>25</sup> however, suggest a poor correlation of serum salicylate levels with the clinical state of the patient. Even in patients receiving therapeutic doses of salicylates, clinical and laboratory findings may be indicative of early salicylism.<sup>26</sup>

The paramount symptom of hyperpnea

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is mediated via the central respiratory center which initially results in respiratory alkalosis. Salicylates also directly affect the medulla, independent of aortic and carotid chemoreceptors, and increase oxygen consumption two-fold.<sup>27</sup> The medullary effect is described as being one of increasing sensitivity to  $\text{CO}_2$  with consequent lowering of the plasma  $\text{CO}_2$ .<sup>28</sup> Compensating is a mechanism which results in the loss of bicarbonate, sodium, and potassium and in the retention of chloride. Extra-renal losses of electrolytes owing to vomiting and diaphoresis compound the situation, with the ultimate production of metabolic acidosis.

Aberrations of carbohydrate metabolism have been described in which glycogenolysis is increased, and glycogen synthesis by the liver is inhibited. It then becomes apparent that the liver is producing glucose at a faster rate than it is replaced or utilized by the body.<sup>29</sup> This sequence of events leads to a ketosis which one should not confuse with diabetic acidosis. Whether further comprehension of the mechanism of metabolic and electrolyte disturbances will result in more effective management remains to be established. Acute salicylism represents a medical emergency; with current concepts of its treatment basically involving 1) rapid removal; 2) enhanced excretion; and 3) correction of acid-base disturbances.

In the following discussion we shall consider 1) supportive measures; 2) conventional fluid therapy; 3) carbonic anhydrase inhibition; 4) extracorporeal hemodialysis; 5) exchange transfusion; 6) peritoneal dialysis; and 7) THAM therapy.

One of the first considerations in salicylism is the mechanical removal of any

unabsorbed salicylate from the gastrointestinal tract. This is effected with induced emesis and/or by gastric lavage. In a patient known to have taken a large dose of salicylate, regardless of how asymptomatic, gastric lavage is clearly indicated.<sup>30</sup> In addition vitamin K should be administered to prevent hemorrhagic diatheses.

Aside from the necessity of administering large quantities of electrolyte solutions containing sodium and potassium, 5 or 10% dextrose in water should be given to enhance diuresis and to improve the carbohydrate status of the patient. The addition of sodium bicarbonate to the fluid regimen requires further consideration.

Sodium bicarbonate has been reported useful in cases of methyl salicylate poisoning.<sup>8, 11, 12, 14, 15</sup> The routes of administration varied and included oral, rectal, intravenous, or combinations thereof.

It is established that blood levels are lowered and excretion of salicylates is enhanced by alkalinizing the urine.<sup>31-33</sup> It is in the face of desiring to improve rapid elimination that this type of therapy is advocated. Experimentally, sodium bicarbonate shortens the duration of salicylate intoxication and increases blood pH and bicarbonate content without affecting the  $\text{pCO}_2$ .<sup>28</sup>

Oliver and Dyer<sup>34</sup> conducted a study among children ranging in age from 14 to 48 months, who had accidental salicylate intoxication. They divided the cases into three groups: 1) those receiving greater than 3L/sq.M/day of oral and intravenous fluids; 2) those receiving fluids and sodium bicarbonate in doses of 3.5 to 5 meq/Kg.; and 3) a group consisting of patients retaining less than 2.5L/sq.M/day. The results indicated that in 15 of the 18 infants placed on

the alkali regimen, there was a 50% fall in salicylate levels within 6.1 hours as compared to 17.2 hours in the control groups. They therefore suggested sodium bicarbonate as the preferred form of therapy in children less than four years of age. The administration of fluids in the above study was equated to L./sq.M./day; whereas, bicarbonate therapy was expressed in meq./Kg. without mentioning the exact amount of fluids concomitantly administered.

Whitten *et al*<sup>35</sup> also reported a study of 18 children with salicylism in which 18 to 36 meq. of sodium bicarbonate were given intravenously for five minutes, then continued therapy with 9 meq./100 ml. of fluid. The results again indicated a 50% reduction in salicylate levels within two to five hours.

The primary objections to bicarbonate therapy are based upon the possibility of shifting the acidotic patient back into respiratory alkalosis and causing both hypopotassemia and hypernatremia. The hypopotassemic contraindication appears to be easily correctable by the addition of 30-40 meq. of potassium/L.<sup>36</sup>

In many of the cases reviewed concerning the use of alkali, sodium bicarbonate predominated as though it were the drug of choice; however, sodium lactate is mentioned by a few authors as being as effective as sodium bicarbonate in the treatment of salicylism.<sup>37-39</sup> At the present time, sodium lactate is the alkali used most frequently at the University Hospital, Baltimore.

In addition to fluid therapy, the use of the carbonic anhydrase inhibitor, acetazolamide, will be considered. Acetazolamide acts in the renal tubules to inhibit carbonic anhydrase, which in turn prevents the production of hydrogen and bicarbonate ions. This process is base-

conserving with the ultimate production of an alkaline urine due to the loss of bicarbonate, sodium, potassium, and water.<sup>40</sup>

Kaplan and delCarmen<sup>41</sup> originally found that acetazolamide therapy alone resulted in an increased excretion of "200 to 1000%" in dogs intoxicated with salicylates. They later discredited the use of acetazolamide on the basis of animal experiments in which very large doses of salicylates were administered and resulted in a mortality rate which was higher after acetazolamide therapy than with fluid therapy alone.<sup>42</sup>

Schwartz *et al*<sup>43</sup> administered sodium bicarbonate for two to four hour control periods in three children whose serum salicylate levels ranged between 25.9 and 57.8 mg./100 ml. They then administered acetazolamide (3-6 mg./Kg.) on one or more occasions. Two of the three cases convulsed and the third died. The authors stated that the acid-base equilibrium is controlled during acetazolamide administration, but that the occurrence of neurologic complications is a serious hazard.

If acetazolamide is given during the phase of respiratory alkalosis, the benefit seems evident. If it is given during the acidotic phase, the increased bicarbonate excretion would appear to lead to a rather circuitous path towards recovery of the patient.

Feuerstein *et al*<sup>44</sup> reported a large series of salicylate intoxications in which acetazolamide plus fluids was administered to one group and fluids alone to another group. The fluids consisted of 1/36 M sodium lactate, potassium and 5% dextrose in water. They showed that the addition of acetazolamide is more effective than fluid therapy alone in the reduction of blood salicylate levels. From a purely experimental point of view, the

salicylate levels of only two patients receiving fluid therapy alone were reported as being carried to full recovery, or the absence of blood salicylate levels. In the group of patients receiving acetazolamide, salicylate levels are reported to completion in a majority of the cases. The authors felt that the glucose and sodium lactate administered were sufficient to prevent any severe acidotic tendency. This is interpreted to mean that they were dealing with two acidotic states, each being treated by alkali, glucose, and potassium. Feuerstein and his co-workers conclude that "conflicting evidence from animal experiments suggests caution in the indiscriminate application of this type of therapy."<sup>2</sup>

A new, yet old, form of removing salicylates from the circulation is that involving extracorporeal hemodialysis. As far back as 1914, Abel, Rowntree, and Turner<sup>45</sup> used salicyclic acid as a test substance in the production of the first artificial diffusion apparatus. Doolan<sup>46</sup> clinically applied extracorporeal hemodialysis to a case of acetylsalicylic acid poisoning in which the initial level of salicylate was 55 mg. per cent. Dialysis for one hour resulted in the removal of 1300 mg. of the salicylate. Unfortunately, the patient died. Further investigation of the literature revealed that four other cases of salicylate intoxication have been

treated with an artificial kidney.<sup>47-50</sup> A summary of the results is presented in Table 1.

It appears that this method is effective in removing large quantities of salicylates within short periods of time, but it is fraught with the inherent dangers of using large quantities of blood; the need of trained personnel; and the expense of the equipment itself.

Another proposed method for the removal of salicylates from the blood is that of exchange transfusion. Twelve cases of salicylate intoxication treated with exchange transfusion were reviewed, all with successful outcomes.<sup>16-21, 51-54</sup> The amount of blood exchanged varied between 500 and 2430 ml. of whole blood. The majority of cases showed vast improvements in blood salicylate levels within short periods of time. This procedure is more simplified than extracorporeal hemodialysis, but also possesses the danger of transfusion reaction. Exchange transfusion seems indicated only in the event of an overwhelming intoxication.

Another therapeutic agent proposed for salicylate intoxication is trishydroxymethylaminoethane or THAM. This compound is a highly alkaline buffer amine which acts as a hydrogen acceptor and which has been shown to reverse respiratory or metabolic acidosis.<sup>55</sup> THAM has been found to increase urinary pH, to effect the excretion of bicarbonate, and to produce a consistent rise in blood pH in patients with respiratory acidosis.<sup>56</sup> THAM therapy results in a marked diuresis of an alkaline urine and enhanced excretion of weak acids,<sup>57</sup> each of which is desirable in causing a rapid removal of salicylates from the body. This type of therapy requires

TABLE 1

Case No.	Salicylate level on admission*	Salicylate levels prior to dialysis	Hrs. on kidney	Amount removed	Salicylate levels post-dialysis
1.	98.6	...	6	...	33
2.	...	61.8	5	2 Gm.	...
3.	56.75	35	3	...	25.75
4.	90.0	...	6	9.4 Gm.	57.0

\* Salicylate levels in mg. per cent.



greater clinical application before any inferences can be made.

Until recently, little was reported on the use of peritoneal dialysis in the treatment of acute salicylism. Elliott *et al*<sup>58</sup> reported three cases using Hartman's Solution (an electrolyte solution containing Na, K, Ca, Cl, and lactate) as the dialyzing medium. The results, however, did not appear to be significantly better than with the aforementioned methods. Etteldorf<sup>59</sup> using 5% albumin plus supplemental Ca and K treated seven cases of salicylism with peritoneal dialysis. This procedure was carried out under local anesthesia and involved the placement of a catheter into the peritoneal cavity. This method may be safer than those employing large quantities of blood, but the decision depends on the experience of the operator in comparing morbidity and mortality from the use of blood versus intra-abdominal excursions.

In conclusion, alkali therapy using sodium bicarbonate or sodium lactate with supplemental potassium seems to be the treatment of choice in uncomplicated cases of salicylism where blood levels do not exceed 40 mg./100 ml., combined with necessary supportive measures. Where more rapid removal is necessitated by the clinical state of the patient, exchange transfusion appears to be the more uncomplicated method whereby large quantities of salicylates may be removed. The latter being supplemented with alkali and supportive therapy.

Acknowledgement: To J. Edmund Bradley, M.D., Professor and Head of Dept. of Pediatrics, and to Samuel P. Bessman, M.D., Professor of Pediatric Research and Associate Professor of Biochemistry, University of Maryland, for their kind cooperation and encouragement.

*Bibliography may be obtained by writing author.*

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## Dean's LETTER

### MEDICAL SCHOOL SECTION

*Dear Members of the Alumni, Students, and  
Friends of the Medical School:*

On November 13, 1961, the contract was let for remodeling of Howard Hall. Rising costs resulted in not as much being included in the contract as we had originally planned. Some equipment had to be withdrawn for future financing, in order to obtain a bid that would fall within the money available for the remodeling. It is expected that the equipment withdrawn will be procured through a separate request to be made from the State.

The remodeling is expected to take approximately one year. We expect the basic science departments to occupy the new areas in Howard Hall by February 1, 1963.

In anticipation of these increased resources the Medical School will enlarge its entering class to 128 for the fall of 1962.

We are pleased to report that University of Maryland medical students taking Part I of the National Board Medical Examinations in 1961 earned average grades well above the national averages.

In my last letter I reported to you the general situation concerning the Medical School's teaching relations with Baltimore City Hospitals. It would now appear that this problem is nearing solution, and the two medical schools will be treated exactly alike with Maryland regaining its official status as originally held for many years.

Sincerely,

WILLIAM S. STONE, M.D.

*Dean*

# *Faculty*

## **NOTES**

### **Department of Anatomy**

Representing the American Cancer Society, Dr. FRANK H. J. FIGGE, Chairman of the Department of Anatomy, visited the county units of the American Cancer Society in Maryland. During September and October Dr. Figge reported to the units in Kent, Montgomery, and Prince George's Counties on Progress in Cancer Research.

Dr. Figge was a Delegate from the State of Maryland to the National Meeting of the American Cancer Society which was held in New York City from the 24th to the 27th of October.

Dr. VERNON E. KRAHL has returned from a three-month period of summer research at the Medical Center of the University of Colorado in Denver. While there, he developed a method of installing a window in the thoracic wall of the rabbit; this permits the observation microscopically of the lung in the closed thorax of the living, unanesthetized animal. Dr. Krahl is using the window technique in his studies on pulmonary anatomy and physiology.

On September 25, Dr. Krahl presented a lecture on The Anatomical Basis of Pulmonary Disease in a Postgraduate Course of the American College of Chest Physicians, held at the Warwick Hotel in Philadelphia. The Potomac Chapter of The American College of Chest Physicians held its annual meeting on October 1 at the Sheraton-Baltimore Inn. On that occasion Dr. Krahl presented a paper on Recent Advances in Pulmonary Emphysema.

From November 3 to 11, Dr. Krahl gave a series of nine lectures at a number

of schools and hospitals in the South and Southwest, describing his studies on pulmonary anatomy, the Glomus pulmonale, and on pulmonary emphysema. The institutions visited included Tulane School of Medicine in New Orleans, Jeff Davis and Veterans Hospitals and Baylor School of Medicine in Houston, and the Medical College of South Carolina in Charleston.

### **Department of Pathology**

Dr. PETER RASMUSSEN, formerly of the University of Kansas School of Medicine, has joined the department as Assistant Professor of Pathology. Dr. Rasmussen will carry on electron microscopic studies on the structure of the myocardium under a grant from the National Institutes of Health.

In November, 1961 Dr. HARLAN I. FIRMINGER travelled to Mexico City to attend the meeting of the Association of University Pathologists.

ZUIER M. NAIB, M.D., Assistant Professor of Pathology, attended meetings of the Intersociety Cytology Council and presented a paper and exhibit on Cytologic Diagnosis, at Memphis, Tenn.

### **Department of Pharmacology**

Dr. JOHN C. KRANTZ, JR., Chairman of the Department of Pharmacology, and his colleagues have recently announced a new type of anesthetic procedure for use in man (see abstracts of papers by Faculty and Alumni). They have demonstrated that a volatile anesthetic agent (methoxyflurane), in an emulsion of the oil-in-water type, injected intravenously in animals and man evokes satisfactory anesthesia.

Through the fall and winter months Dr. J. C. Krantz, Jr., has maintained a busy lecture schedule. In September he

addressed the Kentucky State Medical Association on: "From Anesthesia to Psychiatry via the Fluorinated Ethers" and "A New Approach to Surgical Anesthesia." In October, at the University of Vermont, he spoke at a seminar on the subject: "Fluorinated Ethers and Anesthesia;" in Baltimore, to the American Academy of Psychosomatic Medicine, on: "Indoklon, a New Convulsive Agent in Psychiatric Treatment," and to the West Virginia Academy of General Practice on: "The Choice of a Sympathomimetic Amine." In November, Dr. Krantz spoke to the Garrett and Allegany County Medical and Pharmaceutical Society on "The Simplicity to Wonder." He presented the Bedford Lecture to the Allegheny County Medical Society in Pittsburgh on: "Anesthesia—Man's Redemption from Pain," and discussed "The History of Anesthesia" at the Medical College of Virginia. Dr. Krantz, a member of the National Research Council, met with its Medical Sciences Group in Washington at the National Academy of Sciences. In December, Dr. Krantz met with the Kefauver Senate Committee to speak in defense of the drug industry.

DR. RAYMOND M. BURGISON, Associate Professor of Pharmacology, has been honored recently by his appointment as a Consultant in Chemical Pharmacology to the National Institute of Mental Health, and as a member of the National Advisory Council on Preclinical Psychopharmacology of the N.I.M.H. Dr. Burgison has recently become a member, also, of the International Advisory Board of the new journal: *Chemotherapy Research Bulletin*.

Two eminently successful textbooks

written by members of the Department of Pharmacology have recently appeared in new editions. *Pharmacological Principles of Medical Practice* by John C. Krantz, Jr. and C. Jelleff Carr is now in its 5th edition, published by Williams & Wilkins Co., Baltimore. The second edition of *Modern Pharmacology and Therapeutics* by Ruth D. Musser and Joseph G. Bird has been published by the Macmillan Co., N. Y. Mrs. Musser is Assistant Professor of Pharmacology. Dr. Bird is an alumnus of the School of Medicine and received his Doctor of Philosophy degree in the Department of Pharmacology.

### Department of Physiology

RAJINDER S. SIKAND, B.S., M.B., has joined the Department of Physiology as a Research Fellow of the Maryland Heart Association. He will study the role of proteins and the liver in the regulation of free water reabsorption by the kidney. Born in Barnala, India, Dr. Sikand is a graduate of the King George V Medical College, Punjab University, Lahore, India. He is presently on leave of absence from the Maulana Azad Medical College, University of Delhi, where he is a Reader in Physiology.

### Department of Surgery

DRS. HARUTADA NINOMIYA and MORITZ MICHAELIS attended the First International Pharmacological Meeting held in Stockholm, Sweden during the summer. Drs. Ninomiya and Michaelis described their experiments relating to the biochemical mechanism of shock and disturbances of dehydrogenase activity derived therefrom.

## Student Honored With National SAMA Office



Dean Stone congratulates Mr. Weglicki, Jr., as Dr. Dietrich C. Smith looks on.

MR. WILLIAM B. WEGLICKI, JR. of Baltimore, Md., and a senior student at the University of Maryland School of Medicine has recently been elected President of the Student American Medical Association, more familiarly known as "SAMA," for the year 1961-62. This is the first time the Medical School has been so honored and the students and faculty alike take great pride in the distinction that has been conferred upon Bill as well as upon the school. Not that they were surprised, for they have long been familiar with his worth. Since matriculating in the Medical School in 1958, he has served as President of the local chapter of SAMA, member of the Student Council, and member of the Student Activities Committee. He was also the recipient of the Israel and Cecelia Cohen Scholarship in his Senior year and the Horace Bruce Hetrick Scholarship in his Junior year.

Bill originally comes from Loyola College where he graduated in 1958. He has always liked to sing and was an active member of the Glee Club, as well as the Rifle Club, Mendel Society, and the

Dramatic Society. In addition, he was active in intra-mural sports and in scouting, serving as Assistant Scout Master in the Boy Scouts of America.

As President of SAMA, Bill recently testified before a hearing on the King Bill by the House Ways and Means Committee during which he stated that it was his belief a government medical program would deter promising students from entering medicine. Youths go into medicine out of compassion but "these same people value most highly their freedom to work for the benefit of mankind in an atmosphere of independence that is subject only to the dictates of personal integrity, ethical obligations of service, and the needs of our society."

## Benjamin S. Abeshouse, Former Faculty Member, Dies

DR. BENJAMIN S. ABESHOUSE, who for many years taught urologic pathology at the School of Medicine, died recently. Dr. Abeshouse served as Urologist-in-Chief of the Sinai Hospital.

## Mercy Hospital

DR. VERNON M. SMITH, Professor of Clinical Medicine and Head of the Department of Medicine, spoke at the recent annual meeting of the American Academy of Psychosomatic Medicine held in Baltimore on October 13, 1961. Dr. Smith's subject was "Psychosomatic Aspects of Gastrointestinal Diseases."

Dr. Smith has also addressed the medical staff at the Walter Reed General Hospital in Washington on November 7, 1961, speaking on the topic "Cystic Duct Disease, Correlation with Pathology of Excised Gallbladder." Another topic also covered by Dr. Smith was "Clinical Color Gastroscopic Photography."



# Financing a Medical Education Today

DIETRICH C. SMITH, Ph.D.\*

THE FINANCIAL PLIGHT of the medical student has excited considerable interest and comment among medical educators of late who believe it may be one of the factors in the declining number of applicants to medical school. This decline is viewed with particular alarm when compared to an increase in the number of graduates from liberal arts colleges during the same period. It certainly comes as no surprise to physicians that a medical education is expensive and time consuming, but perhaps many do not realize just how expensive it is. Recently, the Association of American Medical Schools surveyed 4,891 members of the 1959 graduating class and found that it cost them \$11,642 on the average to spend four years in medical school.† The range was from \$9,840 for single students to \$16,048 for married students with two or more children. It might be well to bear in mind that of these 4,891 only 1,847 or 38% were single.

Here at Maryland, we have become increasingly aware of a growing difficulty on the part of our students in financing their medical education. This is evident by the increased demand for help in the form of loans which, in spite of the availability to the school of National Defense Education Act money, has not been adequately met. No doubt at least three factors are involved here: 1) costs have gone up, not only for living but for books, instruments, and tuition as well; 2)

classroom, laboratory, and clinic time has increased to the point where the student must now spend all day five and a half days a week in curricular activities thus making it difficult and hazardous to earn money on the outside, and 3) approximately half our students are married, which as we shall see in almost all cases works no hardship when the wife is employed, but can in some instances produce difficulties. To find out, therefore, just what the facts were regarding our student finances, all of the students registered in the Medical School in the spring of 1961 were asked to answer a questionnaire sent out by the Dean. Answers were received as shown in Table 1.

Table 1.

	Number Students	Number Students Answering
Freshmen	98	98
Sophomores	90	86
Juniors	98	81
Seniors	88	73
Totals	374	338

As can be seen, 90.3% of the student body replied, the response being 97.8% in the two lower classes.

From among this group, 159 or 46% said that in order to continue their medical education they must follow some gainful occupation outside of school hours. To accomplish this, they worked on the average of 11.25 hours per week and earned \$149.981 during the school year (Table 2), their average earnings per year being \$863.

\* Associate Dean, School of Medicine, University of Maryland.

† Alternate Methods for Providing Financial Assistance to Medical Students. Published by Association of American Medical Colleges, September, 1960.

**Table 2.—Earnings During School Year**

	No.	Amount	Average
Freshmen .....	22	\$ 20,540	\$933
Sophomores .....	46	27,910	606
Juniors .....	51	56,010	982
Seniors .....	40	37,330	933
Totals .....	159	\$141,790	\$863

This does not take into account summer earnings in the amount of \$185,017, which, when added to earnings during the school year, bring the earnings of the working student to \$334,998 for the entire year. Looking at the reverse side of the coin, there are 102 students out of the 338 who answered the questionnaire who do not admit having to earn any money at any time, either in the summer or during the school year, to keep themselves in school. This does not mean they did not work, it simply means they answered "no" to the question, "is it necessary for you to work to support yourself during your medical education?". Actually, 31 of this group did work at some time or other during the year.

If some students earn no money and those that do, do so in amounts insufficient to pay for all of their medical education, where do they get their money? As would be expected, the traditional sources are all tapped: borrowings, scholarships, and contributions from parents and relatives, and in addition, a new source of income, the earnings of the wife. Since about half of our students are married, the importance of this is apparent.

**Table 3.—Wives' Earnings**

	No.	Amount	Average
Freshmen .....	20	\$ 73,512	\$3675
Sophomores .....	27	91,460	3387
Juniors .....	26	91,300	3511
Seniors .....	28	70,532	2519
Totals .....	101	\$326,804	\$3345

Actually, as we shall see and as is shown in Table 3, medical students' wives in the aggregate contribute more to the education of medical students than any other group except the total yearly earnings of the students themselves. Out of 150 wives, 101 worked and earned \$326,804 or an average of \$3345 apiece. This, of course, is very close to the \$334,998, representing the total earnings of the students.

**Table 4.—Contributions From Parents and Relatives**

	No.	Amount	Average
Freshmen .....	34	\$ 30,686	\$873
Sophomores .....	45	42,325	940
Juniors .....	28	25,725	918
Seniors .....	27	32,750	1212
Totals .....	175	\$131,486	\$986

Next in order are parents and relatives and as shown in Table 4, there were 175 students who depended upon this source, the total amount so derived was \$131,486 or on the average, \$986 per student. It is interesting to see that the total amount is much the same for each class, except the seniors.

**Table 5.—Expenditure of Savings**

	No.	Amount	Average
Freshmen .....	24	\$ 41,800	\$1672
Sophomores .....	18	20,050	1114
Juniors .....	13	20,090	1607
Seniors .....	8	8,300	1037
Totals .....	63	\$ 91,050	\$1357

Still another source is of course the students' own savings, which in all probability represent an accumulation of income from previous employment. Table 5 shows that a total of \$91,050 was expended from this source. Again, as would be expected, the amount is highest among the freshmen (\$41,800) and declines to about half this figure during the second and third year and then drops to \$8300 for the seniors. From this

# MEDICAL SCHOOL SECTION

it is apparent savings are rarely large enough to see a student all the way through medical school and are often used up completely by the end of the Freshman year.

**Table 6.—Unearned Income**

	No.	Amount	Average
Freshmen	14	\$ 5,655	\$403
Sophomores	14	4,713	336
Juniors	6	2,070	345
Seniors	2	140	70
Totals	36	\$12,578	\$288

Most of the students at Maryland are drawn from middle and lower income groups. Therefore it is not surprising to learn as shown in Table 6 that there were only 36 students in the school who possess any unearned income. Those that do derived a total of \$12,578 from such sources, or an average of \$288 each.

**Table 7.—Scholarships**

	No.	Amount	Average
Freshmen	8	\$ 6,500	\$812
Sophomores	16	6,100	381
Juniors	11	3,400	309
Seniors	18	11,695	649
Totals	53	\$27,695	\$537

In addition to the earnings of the students and their wives, the contribution of parents and relatives, savings and a small amount of unearned income, the student body derives some support from scholarships but not much. The survey yielded the information shown in Table 7. Fifty-three of our students, or approximately one out of seven, hold scholarships which have an average stipend of \$537. These are greatest in the freshman and senior years. Thirty-two of these scholarships were awarded by the Medical School from funds under their control or the control of the Trustees of the Endowment Fund in the amount of \$10,875 for 1960-61. The other 21 were

awarded by outside agencies in the amount of \$16,820.

**Table 8.—Borrowings**

	No.	Amount	Average per yr.
Freshmen	17	\$18,630	\$1095
Sophomores	36	58,325	810
Juniors	29	72,650	835
Seniors	25	79,900	799
Totals	107	\$229,505	\$884

Finally, when all other sources fail, one can always borrow, assuming his credit is good. The amounts borrowed by our students are of particular interest and the results are shown in Table 8. In the spring of 1961 our entire student body owed \$229,505, a little over a quarter of a million dollars.

The total indebtedness, as well as the number in debt, increases as the student progresses through school. The minimum number of borrowers is found in the Freshman class, where it will be recalled from Table 5 expenditures from savings are greatest. In the other classes the number of borrowers is about the same, the average for all classes being 26.75 students, more than a quarter of each class. This would mean each one borrows on the average \$884 a year or a total of \$94,588 each year for all four classes.

**Table 9.—Types of Employment During School Year By Students Who Must Work**

	Laboratory			Total	No.*
	Hospital	tory	Other		
Freshmen	0	10	7	17	98
Sophomores	15	14	12	41	86
Juniors	44	2	5	51	81
Seniors	17	17	6	40	73
Totals	76	43	30	149	338

\* Number answering questionnaire.

As we have seen from Table 2, 159 students stated they must seek work during the school year to earn an average

of \$863 per year. They were asked to describe the sort of work they did and 149 of the 159 complied. The distribution of jobs according to classes is shown in Table 9. The Table does not include those students who stated that it was

**Table 10.—Types of Employment During School Year By Students Who Need Not Work**

	Hospital	Laboratory	Other	Total
Freshmen and Sophomores	0	0	10	10
Juniors	6	2	0	8
Seniors	6	5	2	13
Totals	12	7	12	31

not necessary for them to work during the school year but who nevertheless held a job. The distribution for the 31 in all classes in this category is shown in Table 10.

In Tables 9 and 10, the category "hospital" includes those students involved in patient care, so far as could be determined who serve in hospitals as clinical clerks or as externs. Under "laboratory" are included those who work in hospitals or elsewhere as technologists, fellows, or research assistants. The 32 in the category, "other," are involved in a wide variety of activities including three who practice dentistry and three who practice pharmacy, two who teach, two who are musicians, and several who work as clerks, salesmen, or laborers. None admit to being bartenders or taxi drivers.

The fact that there are 159 students who must work during school to stay in school, as well as 31 who hold down jobs even if there is no economic reason for doing so, is a matter of some concern to the faculty. Whether their medical education suffers is debatable but many feel it does, believing that the time spent in outside work, even if in a hospital en-

vironment, might better be spent in study. However, the cold reality remains that the greater majority of these students could not otherwise continue their medical education unless aid to the extent of at least \$141,790 a year was made available to them. In this connection, it is well to bear in mind that in 1960-61 the Medical School could only lend to students the sum of \$5,228 from their own funds and \$23,372 from National Defense Education Funds, or a total of \$28,600. This sum of course is included in the \$229,505 owed by all medical students in the spring of 1961, as shown in Table 8.

As a special facet of this problem the 15 sophomores, 50 juniors, and 23 seniors who serve either as clinical clerks or externs in various hospitals throughout Baltimore deserve consideration. Many of the faculty feel strongly that these students are assuming responsibilities beyond their capabilities and quite aside from whether a student should or should not work, there are certain legal and ethical questions involving both the student and the hospital which should be given serious thought.

To return to the problem of student finances, the survey by the Association of American Medical Colleges of the 4,891 members of the medical school classes graduating in 1959, already referred to, showed that 1900 of these students or 28% of the group received on the average loan assistance amounting to \$1720 for four years or an average of \$430 per year. Fourteen hundred (1400) of this group or 20% were in debt at graduation in amounts exceeding \$2500. At Maryland, 25 members of the Class of 1961, or 28%, were in debt at graduation having borrowed \$79,900 or on the average \$3196 apiece to pay for their medical education which indicated grad-

uating seniors at Maryland in 1961 were somewhat worse off than the national average for 1959.

So far as non-refundable aid is concerned, Maryland has fewer students on scholarships than the national average which is compensated somewhat by the fact that their stipend is more. The figures show 1700 members or 25% of the students graduating in 1959 receiving some sort of scholarship aid, the average amount being \$424 per year. At Maryland, 20% of the class of 1961 held scholarships with an average stipend of \$659 per year.

**Table 11.—Stipend Income to Graduate and Medical Students**

	Graduate	Medical
Receiving \$3600 or more . . .	55%	8%
Receiving less than \$3600 . .	6%	42%
Receiving no aid . . . . .	39%	50%

The A.A.M.C. survey revealed further startling differences between the non-refundable support available to graduate students in the arts and sciences and medical students. Table 11 shows the differences. By stipend income is meant income derived either from scholarships, fellowships, research assistantships, or teaching assistantships. It is, of course, much easier to arrange aid in the last two categories for graduate students than medical students. In fact, graduate students are oftentimes expected to take a teaching assistantship as part of their educational program and a research assistantship may frequently be awarded a graduate student to do the investigation on which his thesis is based. Because of the nature of the medical curriculum, these two sources of support are not so readily available to the medical student.

Many medical educators believe that because of the better support afforded a graduate student coupled with the in-

creasing prestige enjoyed by physicists, chemists, and biologists in this age of space exploration or missile development, able young men who might otherwise have gone into medicine are turning to other areas of scientific activity. This, of course, poses a dilemma for society, for the increasing growth of our highly complex modern civilization demands more and more well educated people to run it. Medicine, however, certainly cannot be blamed for trying to attract her share and it is becoming quite obvious, in view of the increased cost and increased time required for a medical education, that financial considerations come to play an increasingly important role in determining a student's choice.

The A.A.M.C. points out that at the present time the student's family or his own efforts are providing 80% of the approximate \$12,000 required for four years of medical education. They propose that the balance should be redressed for those students from economically deprived families so that the student or his family provide one-third the costs or \$4000, loan assistance another third, and non-refundable aid the final third. Assuming 8600 students in all medical school classes to be in need of such help such a program would cost \$17,200,000 each year or about \$200,000 per school.

In summary then, there seems a strong case for increasing financial aid to medical students if medical schools are to continue to attract students of high quality. Maryland is certainly no exception to the general rule as is borne out by a study of Table 12 where all sources of money used by our students during 1960-61 to support their medical education is shown. On the average each student received \$3015 last year from one or more of these sources. In this calculation, all

**Table 12.—Income From All Sources For Maryland Medical Students**

Students' earnings	\$ 334,998
Wives' earnings	326,804
Parents and relatives contributions	131,486
Savings	91,050
Borrowings	94,588
Scholarships	27,695
Unearned income	12,578
	<hr/>
	\$1,019,199

students are treated alike, whether they be single or married. The figure for Maryland students agrees reasonably well with the national average of \$2910.

To relieve students of the necessity of working while in school and to put the medical schools in a more competitive position *vis a vis* the graduate schools, the A.A.M.C. estimates about \$200,000 a year per school would have to be made available to the medical schools for loan funds and scholarships. Again, this figure seems to be in good agreement with the results of our 1961 survey where we

found students earning \$141,790 during the school year (Table 2) and borrowing \$65,988 from lenders outside the Medical School or the Federal Government. This latter figure is derived from Table 8 where it is shown that the total borrowing by Maryland medical students is \$94,588 on the average per year of which \$28,600 is derived from low interest, long term loan funds or from the National Defense Education Act Fund. Unless students have access to such funds, they must turn to banks and loan companies where interest rates may run 6% or higher, where in some instances loans must be repaid on a weekly or monthly basis, greatly increasing the cost of the money and where co-signers or collateral is frequently required. Thus if our students are to carry on their medical education without undue financial worry, at least \$200,000 a year in new money should be made available for scholarships and loans.

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## August Kiel, Jr.



THE DEATH of Dr. August Kiel, Jr., on October 4, 1961 came as an inexplicable tragedy to all those who knew him. Only 37 at his death, Dr. Kiel was one of the young, able members of the Department of Neurosurgery. In a few short years he had endeared himself to a host of friends and grateful patients.

Born in Baltimore, Dr. Kiel graduated from Baltimore Polytechnic Institute and Loyola College. He then entered the University of Maryland School of Medicine and was a member of the class of 1946. After his rotating internship at Mercy Hospital, Baltimore, he served as a medical officer in the Navy for two years. On his return to civilian life he took a year of general surgery at Mercy and then entered the Neurosurgical Residency program at the University Hos-

pital, Baltimore. Upon completion of his Residency, Dr. Kiel entered the private practice of Neurosurgery in Baltimore, being affiliated with six hospitals and being in charge of the Neurosurgical Service at Mercy Hospital.

Throughout his years in practice, Dr. Kiel was respected for his professional ability and his unsophisticated, honest appraisal of patients and problems; but it was his gentle kindness that made his patients look upon him as something more than a physician. Although, when necessary, he would point out an error or injustice without undue restraint, this was done with such understanding that he invariably retained the friendship of "the opposition." This understanding and kindness was felt and appreciated by all those with whom he came in contact, whether patient, professional associate, or house officer.

To those who knew him well, Dr. Kiel's sense of humor was legendary. Never one to miss the opportunity of a humorous situation, or make one if necessary, he kept every one from taking himself or his situation too seriously. And yet, as the true Christian he was, his "needles" had no barbs, his caricatures no malice.

Truly his widow and four sons may be justly proud of his memory and those of us fortunate enough to know him will long remember his example. Perhaps the most fitting tribute is the recollection that in our 12 years of close association, we had one argument—I was wrong—he apologized.

ROBERT M. N. CROSBY, M.D.

# It Happened Twenty-Five Years Ago in the *Bulletin*

THE JANUARY, 1937 issue of the BULLETIN contained a paper by Dr. E. Paul Knotts entitled "Tularemia: Report of Four Cases."

The Alumni Association Section described "Rowland Day"—December 18, 1936—set aside by the University of Maryland School of Medicine to commemorate the 20 years Dr. J. M. H. Rowland served as dean of the institution. At 11:00 A.M. on that day Dr. Arthur M. Shipley presided over a public meeting at the Peabody Conservatory of Music. The principal address was by Dr. Thurman D. Kitchin, President of Wake Forest College. A portrait of Dr. Rowland was presented to the University by Dr. Charles Bagley, Jr. on behalf of the medical faculty. That evening at a dinner at the Belvedere Hotel, Dr. Walter D. Wise acted as Toastmaster and the speakers were: Dr. Alan M. Chesney, Dr. Maurice C. Pincoffs, The Hon. Samuel K. Dennis, and Dr. Charles Reid Edwards.

Elsewhere in the Alumni Association Section was a discussion of the University of Maryland Medical Forum. It was stated that during the 1935-36 school session, a group of students in the Medical School approached the Medical Council with a request for permission to organize a student Medical Forum for the purpose of discussing the social and cultural aspects of medicine. Permission

was granted late in the school year and Dr. John C. Krantz, Jr. consented to act as faculty adviser of the group. The idea behind the Forum was to bring before the medical student certain aspects of medicine which are not included in the regular medical curriculum. It was felt that the medical student would become a more intelligent doctor if he were to be made aware of the social aspects of disease and disease prevention as well as of various other socio-medical problems that directly affect the doctor. At the first meeting on November 20, 1936, Dr. R. A. Vonderlehr, Asst. Surgeon-General of the U. S. Public Health Service, gave a detailed statistical survey of the medical and social aspects of syphilis and discussed some of the steps being taken for its control. At the second meeting on December 11, 1936, Dr. Raymond Pearl, Professor of Biology, the School of Hygiene and Public Health of the Johns Hopkins University, spoke on "Some Social Implications of Population Trends." The Proceedings of the latter forum published in the January, 1937 issue of the BULLETIN consisted of an abstract of Dr. Pearl's address. The commentary on the University of Maryland Medical Forum concluded: "Judging from the interest that the Forum has elicited in both students and faculty, there can be no doubt that it is fulfilling a definite need in the life of the Medical School."



# Publications of the Faculty of the School of Medicine

## 1960-1961

### DEPARTMENT OF ANATOMY

- CRISPENS, C. G., JR.: Methylcholanthrene Induced Tumors in Chickens, *Poultry Sc.*, **39**:1510, 1960.
- CRISPENS, C. G., JR.: A Heat-stable Hemagglutinin in Mouse Tissue Extracts, *Proc. Soc. Exper. Biol. & Med.*, **105**:261, 1960.
- CRISPENS, C. G., JR.: Chemical Carcinogenesis in Birds. A review. *Poultry Sc.*, **40**:745, 1961.
- CRISPENS, C. G., JR., BUSS, I. O., and YOCOM, C. F.: Food Habits of the California Quail in Eastern Washington, *Condor*, **62**:475, 1960.
- CRISPENS, C. G., JR. and EASTLICK, H. L.: Chorioallantoic Grafts of a Methylcholanthrene-induced Chicken Sarcoma, *Transpl. Bull.*, **26**:128, 1960.
- CRISPENS, C. G., JR. and EASTLICK, H. L.: Tumors Observed in Hatched Chicks Following Transplantation to the CAM of Pieces of a Methylcholanthrene Induced Chicken Sarcoma (Abstr.), *Anat. Rec.*, **139**:219, 1961.
- CRISPENS, C. G., JR. and KALISS, N.: A Simple Device for Facilitating Injections in the Tail Veins of Mice, *Am. J. Clin. Path.*, **35**:387, 1961.
- FIGGE, FRANK H. J.: Anatomical Observations on Inbred Mice Exhibiting a Constitutional Disease Pattern Similar to that in Man, *Anat. Rec.*, **136**:192, 1960.
- FIGGE, FRANK H. J. and DAVIDHEISER, ROGER H.: Influence of Hypophysectomy on Porphyrin Synthesizing Enzyme Activity of Rat Harderian Glands and Livers, *Proc. Soc. Exp. Biol. & Med.*, **103**:64, Jan. 1960.
- FIGGE, FRANK H. J. and McDONALD, Z. A.: Influence of Obesity on Susceptibility to Induction of Hepatic Tumors. In process of revision.
- FIGGE, FRANK H. J. and BARRICK, DONALD M.: Studies on the Morphological Effects of Heme and other Metalloporphyrins on the Kidney and other Organs, *Anat. Rec.*, **139**:228, 1961.
- KRAHL, V. E.: *The Human Lung* (Translation of *Die Menschliche Lunge* by H. von Hayek, 1953). Hainer Publishing Co., Inc., New York, 1960.
- KRAHL, V. E.: Interspecies Differences in the Lungs of Mammals, *Anat. Rec.*, **136**:225, 1960.
- KRAHL, V. E.: The Glomus Pulmonale. A Preliminary Report. *Bull. School Med. Univ. Maryland*, **45**:36, 1960.
- KRAHL, V. E.: "The Lung," Section in: *Encyclopedia of the Biological Sciences*, Reinhold Publishing Corp., New York.
- KUYPERS, H. G. J. M., FLEMING, W. R., and FARINHOLT, J. W.: Descending Projections to Spinal Motor and Sensory Cell Groups in the Monkey. Cortex versus Subcortex, *Science*, **132**:38, 1960.
- KUYPERS, H. G. J. M.: Central Cortical Projections to Motor and Somato-Sensory Cell Groups, *Brain*, **83**:161, 1960.
- KUYPERS, H. G. J. M. and SZWARCBAUT, M.: Cortico-cortical Connections in Rhesus Monkey, *Anat. Rec.*, **136**:227, 1960.
- KUYPERS, H. G. J. M., HOFFMAN, ARNOLD, J., and BEAZLEY, R. MONTAGUE: Nucleus Cuneatus, Cytoarchitecture and the Termination of the Corticocuneate Fibers, *Anat. Rec.*, **139**:247, 1961.
- LEVEQUE, T. F. and HOFKIN, G. A.: Demonstration of an Alcohol-Chloroform Insoluble, Periodic Acid Schiff Reactive Substance in the Hypothalamus of the Rat, *Zeit. fur Zellforsch.*, **53**:185, 1961.
- MOSES, A. M., GRAMBATTISTA, M., LEVEQUE, T. F. and LLOYD, C. W.: Relationship Between the Neurosecretory Material and Vasopressor Activity of the Rat Posterior Pituitary, *Endocrinology*, June 1961.
- NAUTA, W. J. H.: Anatomical Relationships Between the Amygdaloid Complex, the Dorsomedial Thalamic Nucleus and the

Orbitofrontal Cortex in the Monkey, *Anat. Rec.*, **136**:251, 1960.

NAUTA, W. J. H. and MEHLER, W. R.: Some Efferent Connections of the Lentiform Nucleus in Monkey and Cat, *Anat. Rec.*, **139**:260, 1961.

SOLOMON, HARVEY M. and FIGGE, FRANK H. J.: Porphyrin Metabolism in Mice Following Quantitative Administration of Collidine Compounds and Oxidation Products, *Proc. Soc. Exp. Biol. & Med.*, **105**:484, 1960.

#### DEPARTMENT OF ANESTHESIOLOGY

HACKETT, P. R., BLAIR, E. and HELRICHT, M.: Anesthesia for Cardiac Surgery; The Immediate Post-operative Period, *Am. J. Cardiol.*, **6**:783, 1960.

HACKETT, P. R. and CROSBY, R. M. N.: Some Effects of Inadvertent Hypothermia in Infant Neurosurgery, *Anesthesiology*, **21**:356, 1960.

HACKETT, P. R., BLAIR, E. and HELRICHT, M.: A Study of Deaths Associated with Intracardiac Surgery, *Current Res. in Anesth. & Analg.*, **40**:69, 1961.

KRANTZ, J. C., JR., CASCORBI, H. F., HELRICHT, M., BURGISON, R. M., GOLD, M. I. and RUDO, F.: A Note on the Intravenous Use of Anesthetic Emulsions in Animals and Man with Special Reference to Methoxyflurane, *Anesthesiology*, **22**:491, 1961.

#### DEPARTMENT OF BIOCHEMISTRY

COLBOURN, J. L., WITHERSPOON, B. H. and HERBST, E. J.: Effect of Intracellular Spermine on Ribosomes of *E. Coli*, *Biochim. et biophys. acta.*, **49**:422, 1961.

HERBST, E. J. and WITHERSPOON, B. H.: Inhibition of Spontaneous and Induced Swelling of Mitochondria by Spermine, *Fed. Proc.*, **19**:138 (1960).

HERBST, E. J. and DOCTOR, B. P.: Inhibition of Ribonucleic Acid Degradation in Bacteria by Spermine, *J. Biol. Chem.*, **234**:1497, 1959.

#### DEPARTMENT OF BIOPHYSICS

MULLINS, L. J.: Macromolecular Structure of Excitable Membranes, *Ann. N. Y. Acad. Sci.*, Aug. 1961.

SJODIN, R. A.: Some Cation Interactions in Muscle, *J. Gen. Physiol.*, **41**:929, 1961.

#### DEPARTMENT OF MEDICINE

CAVANAUGH, D. C., RANDALL, R., KELLEY, E. D. and RUST, J. H., JR.: Effects of Radiation Injury in Plague Infection, *Bact. Proc.*, **69**:108, 1960.

GREISMAN, S. E., WOODWARD, T. E., HORNICK, R. B. and SNYDER, M. J.: Role of Endotoxin in Typhoid Fever, *Bull. New York Acad. Med.*, **37**:493, 1961.

GREISMAN, S. E., HORNICK, R. B. and SNYDER, M. J.: Studies on Pathogenesis of Typhoid Fever: Endotoxin and Vascular Reactivity. Abstract, *Am. Soc. Clin. Invest.*, Atlantic City, May 1, 1961.

GREISMAN, S. E. and WISSEMAN, C. L., JR.: Significance of Vascular Injurious Factors in Human Plasma as Determined by Animal Assay. I. Influence of Nutritional Status, *J. Lab. & Clin. Med.*, **56**:355, 1960.

GREISMAN, S. E.: Significance of Vascular Injurious Factors in Human Plasma as Determined by Animal Assay. II. Role of Human Complement in Increasing Capillary Permeability, *J. Lab. & Clin. Med.*, **57**:377, 1961.

GREISMAN, S. E.: Recovery After Anaphylaxis of Isolated Guinea Pig Heum Segments, *Am. J. Physiol.*, **200**:1083, 1961.

MARRIOTT, HENRY J. L. and WEYN, ADRIAN S.: Management of the Child-bearing Cardiac, *Maryland M. J.*, 1961.

MARRIOTT, HENRY J. L.: Editorial: Balm for Writer's Itch, *Am. J. Cardiol.*, **7**:161, 1961.

PETERSDORF, R. G. and WOODWARD, T. E.: The Use of Antibiotics to Prevent Infections by Specific Pathogens, *J. Pediat.*, **58**:153, 1961.

RUST, J. H., JR., GOLEY, A. F., RANDALL, R., ASL, S. J. and CAVANAUGH, D. C.: Murine Toxin in Plague Infection, *Bact. Proc.*, **99**:199, 1960.

SCHAMROTH, LEO and MARRIOTT, HENRY J. L.: Intermittent Ventricular Parasystole with Observations on its Relationship to Extrasystolic Bigeminy, *Am. J. Cardiol.*, **7**:799, 1961.

WOODWARD, T. E., McCRUMB, FRED R., JR., CAREY, T. N., and TOGO, Y.: Viral and Rickettsial Causes of Cardiac Disease, Including the Coxsackie Virus Etiology of Pericarditis and Myocarditis, *Ann Int. Med.*, **53**:1130, 1960.

WOODWARD, T. E. and TIGERTT, W. D.: Review of the Activities of the Commission on Epidemiological Survey, *Mil. Med.*, **126**:37, 1961.

## MEDICAL SCHOOL SECTION

WOODWARD, T. E.: Memorial Article on Maurice C. Pincoffs, M.D., *Maryland M. J.*, **10**:307, 1961.

WOODWARD, T. E. and FIRMINER, H. I.: Discussion of Clinical Pathological Conference, *Maryland M. J.*, **10**:311, 1961.

WOODWARD, T. E.: Tick-borne Typhus. Answer to Editor, *J.A.M.A.*, **177**:172, 1961.

### Division of Cardiology

GONZALEZ, LUIS F., LAYNE, ENNIS C.: Studies on Tritium-Labeled Digoxin: Tissue, Blood and Urine Determinations, *J. Clin. Invest.*, **39**:1578, 1960.

GONZALEZ, LUIS F.: Rupture of the Heart, Editorial, The Heart Page, *Maryland M. J.*, Jan, 1961.

LEE, YU-CHEN: Quinidine Intoxication: An Experimental Study of the Effect of Molar Sodium Lactate and Potassium Chloride, *Am. Heart J.*, **60**:785, 1960.

LEE, YU-CHEN: Some Aspects of Quinidine Therapy in Cardiac Arrhythmia, *Maryland M. J.*, **10**:106, 1961.

SCHERLIS, LEONARD, GONZALEZ, LUIS F. and BESSMAN, SAMUEL P.: Quinidine: Arterial, Venous, Coronary Sinus and Myocardial Concentration, *J. Clin. Invest.*, **40**:60, 1961.

SCHERLIS, SIDNEY: Heart Attacks and the Lawyer, *Law Office Economics and Management*, **1**:58, 1960.

SINGLETON, ROBERT T. and SCHERLIS, LEONARD: Transseptal Cardiac Catheterization—Observations in 56 Cases, *Am. Heart J.*, **60**:879, 1960.

### Division of Dermatology

BERESTON, E. S. and ROBINSON, R. C. V.: Herpes Zoster and Varicella in Identical Twins, *Arch. Dermat.*, **83**:503, 1961.

COHEN, MORRIS, M.: The Infectious Syphilitic Seeks a Diagnosis, *Maryland M. J.*, **82**:797, 1960.

ELLIS, F. A.: Vesicular Malignant Dyskeratosis, *Arch. Dermat.*, **83**:790, 1961.

RASKIN, JOAN: Fluorescence Microscopy in the Diagnosis of Cutaneous Malignancy, *Arch. Dermat.*, **82**:965, 1960.

RASKIN, JOAN: Antigen-Antibody Reaction Site in Contact Dermatitis. Determination by Use of Fluorescent Antibody Technique, *Arch. Dermat.*, **83**:459, 1961.

ROBINSON, H. M., JR. and ROBINSON, R. C. V.: A Year's Experience with Griseofulvin, *The New Physician*, **9**:39, 1960.

ROBINSON, H. M., JR.: Dermatologic Conditions Responsive to Steroids, *Seminar Report*, **5**:10, 1960.

ROBINSON, H. M., JR.: Dichlorisone: A Topical Steroid, *South. M. J.*, **53**:1268, 1960.

ROBINSON, H. M., JR.: Fluocinolone Acetate, *Arch. Dermat.*, **83**:149, 1961.

### Section of Infectious Diseases

GREISMAN, S., WOODWARD, T. E., HORNICK, R. B. and SNYDER, M. J.: Role of Endotoxin in Typhoid Fever, *Bull. New York Acad. Med.*, **37**:493, 1961.

HORNICK, R. B.: Treatment of Typhoid Fever: Treatment of Other Salmonellosis in Conn., *Current Therapy*, W. B. Saunders Co., Philadelphia, 1961.

KRESS, S., SCHLUEDERBERG, A., and McCRUMB, F. R., JR.: Studies with Living Attenuated Measles-virus Vaccine (abstract), *Am. J. Dis. Child.*, **100**:563, 1960.

KRESS, S., SCHLUEDERBERG, A. E., HORNICK, R. B., MORSE, L. J., COLE, J. L., SLATER, E. A. and McCRUMB, F. R., JR.: Studies with Live Attenuated Measles-virus Vaccine. II. Clinical and Immunologic Response in Children in an Open Community, *Am. J. Dis. Child.*, **101**:701, 1961.

McCRUMB, F. R. and WOODWARD, T. E.: The Leptospiroses; in Harrison's *Textbook of Medicine*, 4th Edition, 1961.

McCRUMB, F. R., JR., KRESS, S., SAUNDERS, E., SNYDER, M. J. and SCHLUEDERBERG, A. E.: Studies with Live Attenuated Measles-virus Vaccine. I. Clinical and Immunologic Responses in Institutionalized Children, *Am. J. Dis. Child.*, **101**:689, 1961.

McCRUMB, F. R., JR., HORNICK, R. B., KRESS, S., SCHLUEDERBERG, A. E., SNYDER, M. J., MUSSER, S. and BIGBEE, T.: Studies with Live Attenuated Measles-virus Vaccine. III. Development of a Practical Method for Large Scale Immunization, *Am. J. Dis. Child.*, **101**:708, 1961.

ROIZMAN, B. and SCHLUEDERBERG, A. E.: Virus Infection of Cells in Mitosis. II. Measles-virus Infection of Mitotic HEp-2 Cells, *Proc. Soc. Exper. Biol. & Med.*, **106**:320, 1961.

SCHLUEDERBERG, A. E.: The Role of Antibody in the Persistence of Hela Cell Cultures In-

- infected with Adenovirus Type 2, *Fed. Proc.*, **19**, No. 1, Pt. 1, 1960. (abstract)
- WOODWARD, T. E. and HORNICK, R. B.: Typhoid Fever: in Harrison's *Textbook of Medicine*, 4th edition, 1961.
- Division of Neurology**
- MERLIS, J. K. (and MISRAHY, G.): Corticospinal Mechanisms in Experimental Seizures, *Epilepsia*, **1**:527, 1960.
- MERLIS, J. K., *Epilepsy*: Progress in Neurology & Psychiatry, Vol. XV, Chapter 8, 1960.
- TEITELBAUM, H. A.: Psychosomatic Aspects of Cerebral Vascular Disease, *Sinai Hosp. J.*, **9**:82, 1960.
- VAN BUSKIRK, C. (with OTOMO, E., WOLBARSH, M., DAVIDSON, M.): A Comparison of Spinal Cord, Cortical and Superficial Circulation, *J. Nerv. & Ment. Dis.*, 418-427, Nov. 1960.
- VAN BUSKIRK, C. (with PORTERA-SANCHEZ, A.): Santiago Ramon y Cajal as a Bacteriologist, *Bull. School Med. Univ. Maryland*, **46**:38, 1961.
- Division for Pulmonary Disease**
- JOHNSON, R. L., JR., SPICER, W. S., JR., BISHOP, J. M., and FORESTER, R. E.: Pulmonary Capillary Blood Volume, Flow and Diffusing Capacity During Exercise, *J. Applied Physiol.*, **15**:893, 1960.
- MORGAN, W. K. and MULES, J. E.: The Intravenous Congo Red Test: A Description of Some Unrecognized Fallacies with Suggested Improvements, *Am. J. M. Sc.*, **239**:1, 1960.
- MORGAN, W. K.: The Intracutaneous Congo Red Test, *Acta rheum. scand.*, **6**:92, 1960.
- PRICE EVANS, D. A., STOREY, P. B., WITSTADT, S. B., MANLEY, K. A.: The Determination of the Isoniazid Inactivator Phenotype, *Am. Rev. Respir. Dis.*, **28**:853, 1960.
- PRICE EVANS, D. A., STOREY, P. B., MCKUSICK, V. A.: Further Observations on the Determination of the Isoniazid Inactivator Phenotype, *Bull. Johns Hopkins Hosp.*, **102**:60, 1961.
- SPICER, W. S., JR., STOREY, P. B., MORGAN, W. K., KERR, H. D., STANDIFORD, N. E.: Variation in Respiratory Function in Selected Patients and its Relation to Air Pollution, Paper presented at the American Thoracic Society Meetings, May 22, 1961.
- SPICER, W. S., JR., STOREY, P. B., MORGAN, W. K., KERR, H. D., STANDIFORD, N. E.: Chronic Bronchitis and Emphysema: A Study of Day to Day Variations in a Disease. Paper presented at the American Thoracic Society Meetings, May 23, 1961.
- SPICER, W. S., JR.: Air Pollution and Health, *Maryland M. J.*, **9**: (Oct.) 1960.
- STOREY, P. B.: Pleurisy with Effusion and Tuberculosis, *Maryland M. J.*, **9**: (Oct.) 1960.
- STOREY, P. B., JENSEN, J. R.: Hospital Management of Tuberculosis, *Maryland M. J.*, **9**: (Oct.) 1960.
- Division of Hypertensive-Renal Diseases**
- MADELOFF, M. S., SCHWARTZ, F. D., YOUNG, J. D., JR., BORGES, F. J., ENTWISLE, G., and REVELL, S. T. R., JR.: Differential Renal Clearance Patterns in the Evaluation of Hypertension (abst.), *Clin. Res.*, p. 204, April, 1961.
- MADELOFF, M. S., SCHWARTZ, F. D., YOUNG, J. D., JR., BORGES, F. J., ENTWISLE, G., and REVELL, S. T. R., JR.: The Effect of Insulin and PAH Infusion on Differential Excretion of Sodium, Water and Creatinine (abst.), *Clin. Res.*, p. 204, April, 1961.
- REVELL, S. T. R., JR., BORGES, F. J., ENTWISLE, GEORGE, and YOUNG, J. D., JR.: An Appraisal of Certain Tests for the Detection of Hypertension of Unilateral Renal Origin, *Ann. Int. Med.*, pp. 970-991, 1960.
- SCHWARTZ, F. D. and MADELOFF, M. S.: Simultaneous Renal Clearances of Radiohippuran and PAH in Man (Abstract), *Clin. Res.*, p. 208, April, 1961.
- Division of Endocrinology and Metabolism**
- CHARKES, N. D., SHOCKET, S. and WISWELL, J. G.: Tanned Red Cell Test and Serum Gamma Globulin Levels in Thyroid Disease, *Clin. Res.*, **8**:374, 1960.
- LANGFORD, H. G., DAY, L. H., CONNOR, T., HOWARD, J. E.: A Pressor Substance Probably Angiotensin Found in Renal Venous Blood, *Clin. Res.*, **9**:57, 1961.
- STAUFFER, MARTHA: Oxalosis: Report of a Case with a Review of the Literature and Discussion of the Pathogenesis, *New England J. Med.*, **263**:386, 1960.
- WISWELL, J. G.: Some Effects of Magnesium Loading in Patients with Thyroid Disorders, *J. Clin. Endocrinol. & Metab.*, **21**:31, 1961.

### General Medical Clinic

- ESMOND, W. G.: Design and Implantation Trials of Silastic Dacron (or Teflon)—Ivalon Mitral Heart Valves. *Prosthetic Valves for Heart Surgery*, Charles C Thomas Co., Springfield, Illinois.
- ESMOND, W. G.: An Improved Spring Loaded Single Roller 360° Blood Pump. Published in the *Trans. Amer. Soc. for Artificial Organs*, Vol. VII, 1961.
- ESMOND, W. G.: A Versatile Pump-Oxygenator System with Disposable Components. Published in the *Proc. San Diego Bio-Medical Engineering Symposium*, 1961.
- SCHUBART, A. F., COHEN, A. S., MCNEILL, M., CALKINS, E., SHARP, J. T.: The "Normal" Sacroiliac Joint. Roentgenographic Analysis of 94 Sacroiliac Films Obtained at Random.

### DEPARTMENT OF MICROBIOLOGY

- GREISMAN, S. E. and WISSEMAN, C. L., JR.: Significance of Vascular Injurious Factors in Human Plasma as Determined by Animal Assay. I. Influence of Nutritional Status, *J. Lab. & Clin. Med.*, **55**:355, 1960.
- SMITH, A. G. and GILLOTTE, J. P.: Aberrant Forms of *Coccidioides immitis* in a Coccidioidoma, *Am. J. Clin. Path.*, **34**:477, 1960.
- WISSEMAN, C. L., JR., PAZCUREK, L., BUCCUTI, A., JAMES, H. and OLDSTONE, M. B. A.: Studies on Rickettsial Toxins. V. Dissimilarity Between the Action of Rickettsial Mouse Lethal Toxin and Bacterial Endotoxin in Mice, *J. Immunol.*, **86**:613, 1961.
- WISSEMAN, C. L., JR.: Considerations sur les Rickettsioses chez l'Homme, *Med. et Hyg.*, **18**:710, 1960.
- WISSEMAN, C. L., JR.: Dengue and Dengue-like Fevers in Piersol, *Cyclopedia of Medicine, Surgery, Specialties* (1961).
- WISSEMAN, C. L., JR.: Typhus Fever. In Conn, H. F. *Current Therapy 1961*, W. B. Saunders Co., Philadelphia, pp. 64-66.

### DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

- GAGNETEN, ALFREDO H.: Carcinoma of the Cervical Stump, *Maryland M. J.*, p. 1, Jan. 1960.
- HASKINS, A. L. and SOIVA, K. U.: The Placental Transfer of Progesterone-4-C<sup>14</sup> in Human Term Pregnancy, *Am. J. of Obst. & Gynec.*, **16**:674, 1960.

- KALTREIDER, D. F., SCHWARTZ, B. C., WORKMAN, J. B., and RICE, E.: Some Observations on Thyroid Function in Pregnancy, *Bull. School Med. Univ. Maryland*, **45**:1, 1960.
- SEHGAL, N. and HASKINS, A. L.: The Mechanism of Uterine Bleeding in the Presence of Fibromyomas, **26**:21, 1960.
- TAUBERT, H. D. and HASKINS, A. L.: A Clinical Evaluation of the Lorand Tokodynamometer, *Obst. & Gynec.*, **16**:334, 1960.
- TAUBERT, H. D., HASKINS, A. L. and COHEN, H.: The Diagnostic Significance of Fetal Hemoglobin in the Maternal Circulation During Pregnancy, *South. M. J.*, **53**:1394, 1960.
- TAUBERT, H. D. and SMITH, A. G.: The Clinical Use of Taschdjain's Medium in the Diagnosis of Vulvovaginal Candidiasis, *J. Lab. & Clin. Med.*, **55**:820, 1960.

### DEPARTMENT OF PATHOLOGY

- MOULTON, G. ALLEN: Eastern Equine Encephalomyelitis, *Bull. School Med. Univ. Maryland*, **45**:67, 1960.
- MOULTON, G. ALLEN, MICHAELIS, M. and WAGNER, J. A.: The Effects of Drugs on Experimental Shock in the Rat, *Bull. School Med. Univ. Maryland*, **46**:15, 1961.
- NAIB, Z.: Primary Carcinoma of the Lung. Transactions of the Intersociety Cytology Council, 7th Annual Meeting, 294, 1960.
- POWDER, J. R., NAIB, Z. and YOUNG, J. D.: Cytological Examination of Urine Sediment as an Aid to Diagnosis of Epithelial Neoplasms of the Upper Urinary Tract, *J. Urol.*, **84**:666, 1960.
- REUBER, M. D. and BRADLEY, J. E.: Acute Nephrosis in the Treatment of Lead Poisoning, *JAMA*, **174**:263, 1960.
- REUBER, M. D.: Endometrial Sarcomas of the Uterus and Carcinosarcomas of the Submaxillary Gland, *J. Nat. Cancer Inst.*, **25**:1141, 1960.
- WAGNER, J. A., FROST, J. K., WISOTZKEY, H.: Subarachnoid Neoplasia: Incidence and Problems of Diagnosis, *South. M. J.*, **53**:1503, 1960.

DEPARTMENT OF PEDIATRICS

- BESSMAN, S. P. and DESCHEPPER, P.: Insulin Stimulated Incorporation of Tryptophan into Cell-Free Muscle Homogenates, *Fed. Proc.*, **20**:193, 1961 (abst.).
- BESSMAN, S. P. and TADA, K.: An Enzyme Basis for the Indole Lesion in Phenylketonuria, Society for Pediatric Research, May 1961 (abst.).
- BESSMAN, S. P., SHUREY, R. G., IVENS, I., and CLEMMENS, R. L.: Analysis of Anion Tolerance Tests in Fibrocystic Disease of the Pancreas, *Am. J. Dis. Child.*, **100**:571, 1960.
- BESSMAN, S. P. and DESCHEPPER, P.: An Effect of Insulin on Protein Metabolism in a Cell Free System, Society for Pediatric Research, May, 1961 (abst.).
- COFFIN, G. S., HOOK, W. A. and MUSCHEL, L. H.: Antibacterial Substances in Placentas and Serums of Mothers and Newborn Infants, *Proc. Soc. Exp. Biol. & Med.*, **104**:239, 1960.
- COWLEY, R. A., MANSBERGER, A. R., RUDO, F., HASKINS, J. A., BUXTON, R. W. and BESSMAN, S. P.: A Comparison of the Levels of Blood Ammonia and Other Metabolites in the Portal and Systemic Circulation during Shock, *Surgical Forum*, **10**:405, 1960.
- COWLEY, R. A., DEMETRIADES, A., MANSBERGER, A. R., ATTAR, S., ESMOND, W. G. and BESSMAN, S. P.: Hemorrhagic Shock in Dogs Treated with Extra-Corporeal Circulation. A Study of Survival Time and Blood Chemistry Levels, *Surgical Forum*, **11**:110, 1960.
- GLASER, K.: Group Discussions with Mothers of Hospitalized Infants, *Pediatrics*, **26**:132, 1960.
- GLASER, K.: Conflicts and Rebellion during Adolescence, *Pediatrics*, **27**:839, 1960.
- GORTEN, M. K., WORKMAN, J. B., and HEPNER, R.: A Quantitative Study of Absorption of Labelled Iron in Premature Neonates, Society for Pediatric Research, May 4, 1961 (abst.).
- HEPNER, R. and LUBCHENCO, L.: Method for Continuous Urine and Stool Collection in Young Infants, *Pediatrics*, **26**:828, 1960.
- HEPNER, R. and HAGAR, D.: Staphylococcal Orbital Sepsis in Newborn Infants, *South. M. J.*, **55**:922, 1960.
- HEPNER, R.: Revision of the Section on the Newborn, *Obstetrics for Nurses* edited by M. E. Davis, M.D., W. B. Saunders Co., Philadelphia, Pa.
- KAPPELMAN, M. and ANTONIUS, J.: Teratoma of the Thyroid in Newborn Infants, *Am. J. Dis. Child.*, **101**:505, 1961.
- KAPPELMAN, M.: The "Innocent" E. Coli, *Bull. School Med. Univ. Maryland*, **46**:1, 1961.
- KLAUS, M., TOOLEY, W., WEAVER, K. and CLEMENTS, J.: Functional Residual Capacity in Newborn Infants Measured by a Rapid Physical Method, *Am. J. Dis. Child.*, **100**:482, 1960.
- MAHER, E. E.: Arthrogryposis Multiplex Congenita, Report of Four Cases, *Bull. School Med. Univ. Maryland*, **64**:17, 1961.
- MILLER, N. L. and FINBERG, L.: Peritoneal Dialysis for Salt Poisoning, *New Eng. J. Med.*, **263**:1347, 1960.
- MOSSER, R. S. and BESSMAN, S. P.: Lead Excretion Following Oral dl-Penicillamine with a Method for Comparing the Relative Effectiveness of Chelating Agents on the Excretion of Lead, *Bull. School Med. Univ. Maryland*, **45**:47, 1960.
- LAYNE, E. C., RUDOLPH, C. G. and BESSMAN, S. P.: Studies on the Regulation of Fatty Acid and Cholesterol Synthesis in Avian Liver, *Science*, **132**:418, 1960.
- REUBNER, M. and BRADLEY, J. E.: Acute Versenate Nephrosis, *J.A.M.A.*, **174**:263, 1960.
- STOVIN, J. J., LYONS, J. A. and CLEMENS, R. L.: Mandibulo-Facial Dysostosis, *Yearbook of Pediatrics*, 1960-1961.
- TADA, K. and BESSMAN, S. P.: Studies on Tryptophan Metabolism in Oligophrenia Phenylpyruvia, *Pediatrica Japonica*, **3**:41, 1960.
- TOOLEY, W., KLAUS, M., WEAVER, K., and CLEMENTS, J.: Lung Volume and Distribution of Ventilation in Newborn Infants, *The Physiologist*, **3**:165, 1960. *Am. J. Dis. of Child.*, **100**:731, 1960.
- VAN METRE, T. E., NIEMANN, W. A., and ROSEN, L. S.: Growth Suppressive Effect of Adreno-Cortical Hormones, *J. Allergy*, **31**:531, 1960.
- WRIGHT, C. E.: The Syndrome of Rud, *Bull. School Med. Univ. Maryland*, **46**:22, 1961.

## MEDICAL SCHOOL SECTION

### DEPARTMENT OF PHARMACOLOGY

- KRANTZ, JOHN C., JR.: The Choice of a Symptomimetic Amine, *Bull. School Med. Univ. Maryland*, **46**:11, 1961.
- KRANTZ, JOHN C., JR.: Aspirin Does It Again—Now Hypercholesterolemia, *Cur. M. Digest*, **28**:65 (April), 1961.
- TRUITT, EDWARD B., JR., CALLAWAY, ENOCH, BRAUDE, MONIQUE C., and KRANTZ, JOHN C., JR.: The Pharmacology of Myristicin—A Contribution to the Psychopharmacology of Nutmeg, *J. Neuropsychiat.*, **2**: (March-April) 1961.
- KRANTZ, JOHN C., JR.: At Long Last—Open Warfare Against the Population Explosion, *Cur. M. Digest*, **28**:56 (May), 1961.
- LING, ALFRED S. C., BELL, FREDERICK K., and KRANTZ, JOHN C., JR.: Anesthesia. LXII. The Effect of Hexafluorodiethyl Ether on Brain Cholinesterase Activity, *Anesthesiology*, **2**: (May-June) 1961.
- KRANTZ, JOHN C., JR., CASCORBI, HELMUT F., HELRICH, MARTIN, BURGISON, RAYMOND M., GOLD, MARTIN I., and RUDO, FRIEDA: A Note on the Intravenous Use of Anesthetic Emulsions in Animals and Man with Special Reference to Methoxyflurane, *Anesthesiology*, **22**: (May-June) 1961.
- HENSALA, JOHN C., BURGISON, RAYMOND M., and KRANTZ, JOHN C., JR.: The Pharmacologic Response to 8-Aminotheophylline, *J. Pharmacol. & Exper. Therap.*, **131**: (February) 1961.
- MÜSSER, RUTH D. and BIRD, JOSEPH G.: A 92-page Supplement to *Modern Pharmacology and Therapeutics*, The Macmillan Co., New York, 1960.

### DEPARTMENT OF PHYSIOLOGY

- BARRY, J. Q., FERGUSON, F. P., GOLD, A. J. and SMITH, D. C.: Relationship of Respiratory Alkalosis and Adrenal Activity to Hypokalemia in Restrained and Unrestrained Dogs Subjected to Simulated High Altitude, *Fed. Proc.*, **20**:210, 1961 (Abst.).
- BLAKE, W. D.: Neural Control of Sodium Excretion, *The Physiologist*, **3**:22, 1960 (Abst.).
- BLAKE, W. D.: Intrarenal Distribution of Flow as Influenced by Norepinephrine Infusion, *Fed. Proc.*, **20**:407, 1961 (Abst.).
- BLAKE, W. D.: Complete Occlusion of a Renal Artery Branch on Glomerular and Tubular Function, *Am. J. Physiol.*, **199**:503, 1960.
- GREISMAN, S. E.: Recovery after Anaphylaxis of Isolated Guinea Pig Ileum Segments, *Am. J. Physiol.*, **200**:1083, 1961.

### DEPARTMENT OF PREVENTIVE MEDICINE AND REHABILITATION

- ENTWISLE, G., REVELL, S. T. R., JR., BORGES, F. J., and YOUNG, J. D., JR.: An Appraisal of Certain Tests for the Detection of Hypertension of Unilateral Renal Origin, *Ann. Int. Med.*, **53**:970, 1960.
- ENTWISLE, G. and ENTWISLE, D. R.: Study-skills Courses in Medical Schools, *J. M. Educ.*, **35**:843, 1960.
- DOWLING, A. S.: Educational and Training Programs in Maryland's Chronic Disease Hospitals, *Maryland State Dept. of Health Monthly Bull.*, **33**: (May) 1961.
- FRAZIER, T. M., PHILLIPS, O. C.: The Baltimore Anesthesia Study Committee: Review of 1,024 Postoperative Deaths, *J.A.M.A.*, **174**:2015, 1960.
- HENDERSON, M. and ANTHORP, G. H.: Rapid Method for Estimation of Carbon Monoxide in Blood, *Brit. M. J.*, **2**:1853, 1960.
- HENDERSON, M., TAYBACK, M. and ENTWISLE, G.: The Prevalence of Asymptomatic Significant Bacteriuria and Its Association with Prematurity in Negro and White Women, *Clin. Research*, **9**:202, 1961 (abst.).
- MADELOFF, M. S., SCHWARTZ, F. D., YOUNG, J. D., JR., BORGES, F. J., ENTWISLE, G., and REVELL, S. T. R., JR.: Differential Renal Clearance Patterns in the Evaluation of Hypertension, *Clin. Research*, **90**:204, 1961 (abst.).
- MADELOFF, M. S., SCHWARTZ, F. D., YOUNG, J. D., JR., BORGES, F. J., ENTWISLE, G. and REVELL, S. T. R., JR.: The Effect of Insulin and PAH Infusion on Differential Excretion of Sodium, Water and Creatinine, *Clin. Research*, **9**:204, 1961 (abst.).
- MAHONEY, F. I., MCCALLUM, J. A., WOOD, O. H. and BARTHEL, D. W.: Rehabilitation of the Chronically Ill, *South M. J.*, **54**:600, 1961.
- RICHARDSON, A. D.: Teaching of Multidisciplinary Approach to Rehabilitation of the

- Chronically Ill, *J. M. Educ.*, **35**:943, 1960 (abst.).
- WILLIAMS, H.: Dental Dividends from Fluoridation, *Baltimore Health News*, Sept. 1960.
- WILLIAMS, H.: City Health Officers Organize, *City Health Officers News*, **1**: (Feb.) 1961.
- WILLIAMS, H.: Civil Defense Operation Alert —1961: April 28-May 5, *Baltimore Health News*, May 1961.
- DEPARTMENT OF PSYCHIATRY**
- ARONSON, H. and KLEE, G. D.: Effect of Lysergic Acid Diethylamide (LSD-25) on Impulse Control, *J. Nerv. & Ment. Dis.*, **131**: 536, 1960.
- BERTINO, J. R., KLEE, G. D., COLLIER, D. and WEINTRAUB, W.: Clinical Studies with Diethylamide and Lysergic Acid Diethylamide, *J. Clin. & Exp. Psychopath.*, **21**:293, 1960.
- BOWEN, M.: A Family Concept of Schizophrenia. In Jackson, ed. *The Etiology of Schizophrenia*. Basic Books, New York.
- BOWEN, M.: Family Psychotherapy, *Amer. J. Orthopsychiat.*, **31**: (No. 1), 1961.
- BOUSFIELD, W. A., WHITMARSH, G. A. and BERKOWITZ, H.: Partial Response Identities in Associative Clustering, *J. Gen. Psychiat.*, **63**:233, 1960.
- BRODY, E. B.: The Development of the Psychiatric Resident as a Therapist, pp. 86-99. In Dellis, N. P. and Stone, H. K., eds. *The Training of Psychotherapists*, p. 195. Louisiana State Univ. Press, Baton Rouge, Louisiana, 1960.
- BRODY, E. B.: What Do Schizophrenics Learn During Psychotherapy and How Do They Learn It? In Dawson, J. G., Stone, H. K. and Dellis, N. P., eds. *Psychotherapy with Schizophrenics: A Reappraisal*, pp. 53-73, p. 156. Louisiana State Univ. Press, Baton Rouge, Louisiana, 1961.
- BRODY, E. B.: Review of *The American Handbook of Psychiatry*, S. Arieti, ed. *J. Nerv. & Ment. Dis.*, **131**:554, 1960.
- BRODY, E. B.: Review of *Psychoanalysis and Psychotherapy*. Selected Papers of Frieda Fromm-Reichman, Dexter Bullard, ed. *J. Nerv. & Ment. Dis.*, **131**:454, 1960.
- BRODY, E. B.: Review of *Zen Buddhism and Psychoanalysis*. E. Fromm, T. Suzuki and De Martino, R., *J. Nerv. & Ment. Dis.*, **131**:558, 1960.
- FARINHOLT, L. W.: Legal Aspects of Trauma and Heart Disease, *Maryland M. J.*, **9**:381, 1960.
- GILBERT, A.: An Experiment in Brief Treatment of Parents, *Social Work*, Oct. 1960.
- GLANZER, M.: Changes and Interrelations in Exploratory Behavior, *J. Comp. & Physiol. Psychol.*, June, 1961.
- GLANZER, M. and GLASER, R.: Techniques for the Study of Group Structure and Behavior. II. Empirical Studies of the Effects of Structure, *Psychol. Bull.*, Vol. 58, 1961.
- KLEE, G. D.: Serotonin and Brain Functions, *M. Times*, **88**:1301, 1960.
- KLEE, G. D., BERTINO, J., WEINTRAUB, W. and CALLAWAY, E., III.: The Influence of Varying Dosage on the Effects of Lysergic Acid Diethylamide (LSD-25), *J. Nerv. & Ment. Dis.*, **132**:404, 1961.
- LISANSKY, E. T.: Review of *Anorexia Nervosa*, Bliss and Branch, *Ann. Int. Med.*, October, 1960.
- LISANSKY, E. T.: Review of *Psychophysiological Approach to Medical Practice*, William W. Schottstaedt, *Cur. M. Digest*, **28**:41, 1961.
- MACNICHOL, E. F., JR., WOLBARSH, M. L. and WAGNER, H. G.: Electrophysiological Evidence for a Mechanism of Color Vision in the Goldfish. In MacElroy, W. D. and Glass, B., eds. *Light and Life*. Johns Hopkins Press, Baltimore, 1961.
- MONROE, R. R.: The Hypnotic Control of Intractable Pain (with LEA, PAUL A. and WARE, P. D.), *Am. J. Clin. Hypnosis*, **3**:3, 1960.
- MONROE, R. R.: Psychotherapy as an Adjunctive Treatment for Schizophrenia. In Dawson, J. G., Stone, H. K. and Dellis, N. P., eds. *Psychotherapy with Schizophrenics: A Reappraisal*. Louisiana State Univ. Press, Baton Rouge, Louisiana, 1961.
- MONROE, R. R.: The Therapeutic Motivation in Male Homosexuals: An Adaptational Analysis (with ENELOW, M. L.), *Amer. J. Psychother.*, **14**:474, 1960.
- MONROE, R. R.: Discussion: An Interpersonal Approach to Training in Psychotherapy. In Dellis, N. P. and Stone, H. K., eds. *The Training of Psychotherapists: A Multidisciplinary Approach*. Louisiana State Univ. Press, Baton Rouge, Louisiana, 1960.
- NOVEY, S.: Further Considerations on Affect



# MEDICAL SCHOOL SECTION

- Theory in Psychoanalysis. *Int. J. Psychoanal.*, Jan.-April, 1961.
- NOVEY, S.: The Influence of the Anticipatory Attitudes of the Patient on the Resolution of the Transference, *Psychoanal. Quart.*, **30**:56, 1961.
- NOVEY, S.: The Outpatient Treatment of Borderline Paranoid States, *Psychiatry*, **23**:357, 1960.
- NOVEY, S.: Review of *Psychoanalytic Concepts of Depression*, Myer Mendelson, *J. Nerv. & Ment. Dis.*, **132**:267, 1961.
- OTOMO, E., WOLBARSH, M. L., VAN BUSKIRK, C. and DAVIDSON, M.: A Comparison of Spinal Cord, Cortical and Superficial Circulation, *J. Nerv. & Ment. Dis.*, **131**:418, 1960.
- RAHER, J.: Contribution a l'etude de l'alimentation vegetarienne chez l'enfant. Doctoral thesis in medicine. Univ. Geneva (Switzerland), published Jan., 1961.
- RAHER, J. and FLORES, A. M.: Role of Emotion in the Precipitation and Exacerbation of Symptoms and in the Unexplained Death of an Adolescent with Dermatomyositis: A Case Report, *J. Nerv. & Ment. Dis.*, **131**:260, 1960.
- ROBINSON, H. A.: Editorial Psychiatry, *Lancet*, **2**:271, 1960 (abst.).
- ROBINSON, H. A.: The Representation of Physique in Children's Figure Drawings, *J. Consult. Psychol.*, **25**:146, 1961 (with A. B. SILVERSTEIN).
- SHOCHET, B. R.: Megaloblastic Anemia of the Puerperium, *Maryland M. J.*, p. 731, Nov. 1960.
- SHOCHET, B. R.: Occurrence of Myocardial Infarction in Women 50 Years of Age and Younger: Recent Experiences at Sinai Hospital, *Sinai Hosp. J.*, (Baltimore), **9**: (No. 2), 1960.
- SHOCHET, B. R.: A Standardized Electrocardiograph Exercise Tolerance Test, *Sinai Hosp. J.* (Baltimore), **9**:24, 1960.
- SHOCHET, B. R.: Review of *Group Processes*, *Transactions of the Fifth Conference*, *Sinai Hosp. J.* (Baltimore), **9**:236, 1960.
- SIEGMAN, A. W.: Some Determinants of One's Concept of God. In Godin, A. S., ed. *Research in Religious Psychology*, Lumen Vitae, Brussels, 1961.
- SILVERSTEIN, A. B. and KLEE, G. D.: The Effect of Lysergic Acid Diethylamide on Dual Pursuit Performance, *J. Clin. & Exp. Psychopath.*, **21**:300, 1960.
- WAGNER, H. G., MACNICHOL, E. F., JR. and WOLBARSH, W. L.: The Response Properties of Single Ganglion Cells in the Goldfish Retina, *J. Gen. Physiol.* (Suppl.), **43**:45, 1960.
- WEINTRAUB, W., SILVERSTEIN, A. B. and KLEE, G. D.: The "Correction" of the Deviant Responses on a Work Association Test as a Measure of the Defensive Functions of the Ego, *Arch. Gen. Psychiat.*, **3**:17, 1960.
- WEINTRAUB, W.: Review of *The Use of LSD in Psychotherapy*, Harold A. Abramson, ed. *J. Nerv. & Ment. Dis.*, **132**:358, 1961.
- WEINTRAUB, W.: Review of *The Culture of the State Mental Hospital*, H. Warren Dunham and S. Kirson Weinberg, *J. Nerv. & Ment. Dis.*, **131**:555, 1960.
- WEINTRAUB, W.: Review of *La Societe Francaise de Psychanalyse*, *La Psychanalyse*, Volume 5, *J. Nerv. & Ment. Dis.*, **132**:268, 1961.
- WESTON, D. L.: The Dimensions of Crafts, *Amer. J. Occup. Ther.*, **15**: (No. 1), 1961.
- WHITMARSH, G. A.: A Comparative Study of Two Theories of Verbal Generalization, Doctoral dissertation, Univ. of Connecticut, 1961.
- WHITMARSH, G. A. and BOUSFIELD, W. A.: Use of Free-Associational Norms for the Prediction of Generalization of Salivary Conditioning to Verbal Stimuli, *Psychol. Reports*, **8**:91, 1961.
- WOLBARSH, M. L.: Electrical Characteristics of Insect Mechanoreceptors, *J. Gen. Physiol.*, **44**:105, 1960.
- WOLBARSH, M. L., MACNICHOL, E. F., JR. and WAGNER, H. G.: A Glass Insulated Platinum Microelectrode, *Science*, **132**:1309, 1960.
- WOLBARSH, M. L., WAGNER, H. G. and MACNICHOL, E. F., JR.: The Origin "On" and "Off" Responses of Retinal Ganglion Cells. In Jung, R., ed. *Neurophysiologie und Psychophysik des visuellen systems*. Springer Verlag, Berlin, 1961.
- WOLBARSH, M. L., WAGNER, H. G. and MACNICHOL, E. F., JR.: Receptive Fields of Retinal Ganglion Cells. In Jung, R., ed. *Neurophysiologie und Psychophysik des visuellen systems*. Springer Verlag, Berlin, 1961.

*Participation of Social Workers in Medical Education*, National Association of Social Workers, 1961 (Committee Report on Findings of a Study of the Content and Method of Social Workers' Teaching in the Undergraduate Medical Curriculum—members of Committee, M. Russel, C. Griffin, M. Harle, M. Madsen, M. Meuser, B. Phillips, F. Poe, M. Poole, M. Stark, I. Young).

SCHNAPER, N., What: Preanesthetic Visit? *Anesthesiology*, **22**:486, 1961.

## DEPARTMENT OF RADIOLOGY

BLOEDORN, F. G., CUCCIA, C. A., MERCADO, R.: The Place of Interstitial Gamma Emitters in Radiotherapy: Indications—Requirements—Examples. *Am. J. Roentgenol.*, **85**:407, 1961.

BLOEDORN, F. G., COWLEY, R. A.: Combined Therapy: Irradiation and Surgery in the Treatment of Bronchogenic Carcinoma, *Surg., Gynec. & Obst.*, **111**:141, 1960.

BLOEDORN, F. G., COWLEY, R. A., CUCCIA, C. A., MERCADO, RAUL: Combined Therapy: Irradiation and Surgery in the Treatment of Bronchogenic Carcinoma, *Am. J. Roentgenol.*, **85**:875, 1961.

BOUDREAU, R. P.: Primary Intraventricular Tumors, *Radiology*, **75**:807, 1960.

## DEPARTMENT OF SURGERY

### General Surgery

BUNTON, ROBERT W.: Smooth Muscle Tumors of the Gastro-intestinal Tract, *Am. Surgeon*, **26**: No. 10, Oct. 1960.

BUNTON, ROBERT W. (with NINOMIYA, HARUTADA and MICHAELIS, M.): Reductases, Glycolysis and Protein Content of Rat Brain after Shock with and without Tranquilization, *Biochem. J.*, **76**:47, 1960.

BUNTON, ROBERT W. (with HAINES, B. W. and MICHAELIS, M.): The Effect of Hemorrhagic Shock upon Succine Oxidation in Dog Liver and Brain Slices, *Bull. School Med. Univ. Maryland*, **46**:3, 1961.

BUNTON, ROBERT W. (with NINOMIYA, H. and MICHAELIS, M.): Pasteur Reaction and Glycogen Content of Rat Brain after Noble-Collip Drum Shock, *Proc. Soc. Exper. Biol. & Med.*, **106**: No. 1, Jan. 1961.

EDWARDS, MONTE: Multilocular Retrorectal Cystic Disease—Cyst—Hamartoma. Report

of Twelve Cases, *Dis. Colon & Rectum*, **4**:103, 1961.

FLOTTE, C. THOMAS (with E. F. WOLFMAN): Carcinoma of the Colon and Rectum, *Am. J. Nursing*, March 1961.

MANSBERGER, ARLIE R., JR.: Postoperative Fluid, Electrolyte Balance and Blood Volume, *JAMA*, **174**:1941, 1960.

MANSBERGER, ARLIE R., JR. (with LANKFORD, PHILIP): The Value of Ammonia Determination on Peritoneal Fluid in the Differential Diagnosis of Pathologic States Resulting in Hemorrhagic Ascites (Preliminary Report), *Am. Surgeon*, **26**: No. 11, Nov. 1960.

MANSBERGER, ARLIE R., JR. (with COWLEY, R. A., DEMETRIADES, A., ATTAR, S., ESMOND, WM. G. and BESSMAN, S.): Hemorrhagic Shock in Dogs Treated with Extracorporeal Circulation. A Study of Survival Time and Blood Chemistry Levels. Vol. XI, *Surgical Forum*, American College of Surgeons, p. 110, 1960.

MANSBERGER, ARLIE R., JR.: Evaluating the Patient for Anesthesia and Surgery—Evaluation and Correction of Electrolyte, Blood and Fluid Balance, *Audio Digest—Anesthesiology*, **2**: Oct. 11, 1960.

MICHAELIS, MORITZ (with NINOMIYA, H. and BUNTON, R. W.): Reductases, Glycolysis and Protein Content of Rat Brain after Shock, with and without Tranquilization, *Biochem. J.*, **76**:47, 1960.

MICHAELIS, MORITZ (with OTOMO, EIICHI): Penetration of Radioactive Phosphorus into Normal and Shocked Rats' Brain, *Proc. Soc. Exper. Biol. & Med.*, **104**:259, 1960.

MICHAELIS, MORITZ (with BUNTON, R. W., HAINES, B. W.): The Effect of Hemorrhagic Shock upon Succinic Oxidation in Dog Liver and Brain Slices, *Bull. School Med. Univ. Maryland*, **46**:3, 1961.

MICHAELIS, MORITZ (with MOULTON, G. ALLEN, WAGNER, JOHN A.): The Effect of Drugs on Experimental Shock in the Rat, *Bull. School Med. Univ. Maryland*, **46**:15, 1961.

MICHAELIS, MORITZ (with NINOMIYA, HARUTADA, and BUNTON, R. W.): Pasteur Reaction and Glycogen Content of Rat Brain after Noble-Collip Drum Shock, *Proc. Soc. Exper. Biol. & Med.*, **106**: Jan. 1961.

NINOMIYA, HARUTADA (with BUNTON, R. W. and MICHAELIS, M.): Reductases, Glycoly-

## MEDICAL SCHOOL SECTION

sis and Protein Content of Rat Brain after Shock with and without Tranquilization, *Biochem. J.*, **76**:47, 1960.

NIXOMIYA, HARUTADA (with BUNTON, R. W., and MICHAELIS, M.): Pasteur Reaction and Glycogen Content of Rat Brain after Noble-Collip Drum Shock, *Proc. Soc. Exper. Biol. & Med.*, **106**: Jan. 1961.

### Division of Neurological Surgery

MOSBERG, WM. H., JR.: Anterior Approach to the Cervical Vertebral Bodies (with LIPPMAN, E. M.), *Bull. School Med. Univ. Maryland*, **45**:10, 1960.

MOSBERG, WM. H., JR. and SHARRETT, JOHN A.: Penetrating Wounds of Skull due to Metal Axle of Collapsible Toy Cars, *J.A.M.A.*, **173**:804, 1960.

### Division of Orthopedic Surgery

ABRAMS, ROBERT C.: Meniscal Lesions of the Knee in Children, *Clin. Orthopaedics*, No. 18, 1960.

VOSHILL, ALLEN F.: Hip Joint Conditions, Early May be too Late, *Arkansas M. J.*, 1960.

### Division of Otolaryngology

BLANCHARD, CYRUS L. (with BORSANYI, STEVEN): Asymptomatic Enlargement of the Parotid Glands, *J.A.M.A.*, **174**:20, 1960.

BLANCHARD, CYRUS L. (with BORSANYI, STEVEN and THORNE, BERTRAM C.): The Effects of Ionizing Radiation on the Ear, *Annals of Otolaryngology, Rhin. & Laryn.*, **70**:255, 1961.

BLANCHARD, CYRUS L. (with GOROSIN, R., BORSANYI, S.): Clinical Trial with Triclobisonium Chloride in the Treatment of B. Proteus Ear Infections, *Laryngoscope*, **71**:78, 1961.

BORSANYI, STEVEN (with BLANCHARD, CYRUS L.): Asymptomatic Enlargement of the Parotid Glands, *J.A.M.A.*, **174**:20, 1960.

BORSANYI, STEVEN (with BLANCHARD, CYRUS L. and THORNE, BERTRAM C.): The Effects of Ionizing Radiation on the Ear, *Annals of Otolaryngology, Rhinol. & Laryngol.*, **70**:255, 1961.

BORSANYI, STEVEN: Nasal Glioma, *Arch. Otolaryn.*, **72**:376, 1960.

BORSANYI, STEVEN: Pituitary Chromophobe Adenomas of the Nasopharynx, *Arch. Otolaryn.*, **72**:779, 1960.

BORSANYI, STEVEN: Diagnosis and Treatment of Parotid Duct Calculi, *J.A.M.A.*, Question and Answer Section, July, 1960.

BORSANYI, STEVEN (with BLANCHARD, CYRUS L. and GOROSIN, R.): Clinical Trial with Triclobisonium Chloride in the Treatment of B. Proteus Ear Infections, *Laryngoscope*, **71**:78, 1961.

GOROSIN, RESTITUTO (with BLANCHARD, CYRUS L. and BORSANYI, S.): Clinical Trial with Triclobisonium Chloride in the Treatment of B. Proteus Ear Infections, *Laryngoscope*, **71**:78, 1961.

MICHAEL, THOMAS D. (with GRAFF, THOMAS D., HARRIS, LEROY C., PHILLIPS, OTTO C., NELSON, ALFRED T. and FOX, EDWARD T.): Ether Anesthesia for Tonsillectomy Studies in Respiratory Adequacy, *Laryngoscope*, **70**:1660, 1960.

THORNE, BERTRAM C.: Psycho-Tell: An Aid in the Estimate of Functional Auditory Disorders, *Arch. Otolaryn.*, **72**:626, 1960.

THORNE, BERTRAM C.: An Audiologic Evaluation of Patients in a Hospital for the Chronically Ill, *South. M. J.*, **54**:71, 1961.

THORNE, BERTRAM C. (with BLANCHARD, CYRUS L., BORSANYI, S.): The Effects of Ionizing Radiation on the Ear, *Annals of Otolaryngology, Rhin. & Laryn.*, **70**:255, 1961.

THORNE, BERTRAM C.: The Problem of the Marginally Deaf, *The Volta Review*, **63**:133, 1961.

THORNE, BERTRAM C.: When Your Patient Wears a Hearing Aid, *R. N.*, **49**:55, 1961.

THORNE, BERTRAM C.: Acknowledgement for Advice and Technical Assistance for Laing, James: Better Tape Recordings of Cleft Palate Speech in "Clinical Forum," *J. Speech & Hearing Disorders*, **26**:182, 1961.

### Division of Thoracic Surgery

ATTAR, SAFUJI (with MANSBERGER, ARLIE, JR., COWLEY, R. ADAMS, DEMETRIADES, A., ESMOND, WM. G. and BESSMAN, S.): Hemorrhagic Shock in Dogs Treated with Extracorporeal Circulation, Vol. XI, *Surgical Forum*, Am. College of Surgeons, p. 110, 1960.

ATTAR, SAFUJI (with TISCHLER, MORRIS, TAMRES, A., and COWLEY, R. ADAMS): A New Portable Defibrillator Above Sixty Cycles, *Bull. School Med. Univ. Maryland*, **46**:8, 1961.

- ATTAR, SAFUH (with ESMOND, WILLIAM G., BRALEY, SILAS, MCGREGOR, R. R. and COWLEY, R. A.): Design and Implantation Trials of Silastic Dacron (or Teflon) Ivalon Mitral Heart Valves. Chapter in book entitled: *Prosthetic Valves for Heart Surgery*, Charles C Thomas, Springfield, Illinois, 1961.
- BLAIR, EMIL: Physiologic Rationale, *Clin. Pharm. & Ther.*, **1**:758, 1960.
- BLAIR, EMIL (with HACKETT, P. R. and HELRICHI, M.): Anesthesia for Cardiac Surgery, *Am. J. Cardiol.*, **6**:783, 1960.
- BLAIR, EMIL (with HOOK, ROBERT, TOLLEY, HOWARD and BUNCE, G. EDWIN): Serum Glutamic Oxalacetic Transaminase Content in Hypothermia, *Science*, **133**:105, 1961.
- BLAIR, EMIL: Anatomy of the Ventricular Coronary Arteries in the Dog, *Circulation Res.*, **9**:333, 1961.
- BLAIR, EMIL (with COWLEY, R. A.): Cardiovascular Reflexes Elicited by Total Circulatory Occlusion and Release, *Clin. Res.*, **9**:13, 1961.
- BLAIR, EMIL (with COWLEY, R. A.): Morphological Study of Healing of Experimental Myocardial Infarction, *Clin. Res.*, **10**:1961.
- BLAIR, EMIL (with HACKETT, P. R. and HELRICHI, M.): A Study of Deaths Associated from Intracardiac Surgery, *Anesth. & Anal.*, **40**:69, 1961.
- COWLEY, R. ADAMS (with MANSBERGER, ARLIE R., JR., DEMETRIADES, A., ATTAR, S., ESMOND, WM. G. and BESSMAN, S.): Hemorrhagic Shock in Dogs Treated with Extracorporeal Circulation. A Study of Survival Time and Blood Chemistry Levels, Vol. XI, *Surgical Forum*, Am. College of Surgeons, p. 110, 1960.
- COWLEY, R. ADAMS (with TISCHLER, MORRIS, ATTAR, SAFUH, TAMRES, A.): A New Portable Defibrillator Above Sixty Cycles, *Bull. School Med. Univ. Maryland*, **46**:8, 1961.
- COWLEY, R. ADAMS (with ATTAR, S., ESMOND, WM. G., BRALEY, SILAS, MCGREGOR, R. R.): Design and Implantation Trials of Silastic Dacron (or Teflon) Ivalon Mitral Heart Valves. Chapter in book entitled, *Prosthetic Valves for Heart Surgery* by Charles C Thomas, Springfield, Illinois, 1961.
- COWLEY, R. ADAMS (with BLOEDORN, FERNANDO): Irradiation and Surgery in the Treatment of Bronchogenic Carcinoma, *Surg. Gynec. Obst.*, **111**:141, 1960.
- DEMETRIADES, ANDREAS (with MANSBERGER, ARLIE R., JR., ATTAR, S., COWLEY, R. A., ESMOND, WM. G. and BESSMAN, S.): Hemorrhagic Shock in Dogs Treated with Extracorporeal Circulation. A Study of Survival Time and Blood Chemistry Levels, Vol. XI, *Surgical Forum*, Am. College of Surgeons, p. 110, 1960.
- ESMOND, WM. G. (with MANSBERGER, ARLIE R., JR., COWLEY, R. A., DEMETRIADES, A., ATTAR, S., and BESSMAN, S.): Hemorrhagic Shock in Dogs Treated with Extracorporeal Circulation. A Study of Survival Time and Blood Chemistry Levels, Vol. XI, *Surgical Forum*, Am. College of Surgeons, p. 110, 1961.
- ESMOND, WM. G. (with ATTAR, S., BRALEY, SILAS, MCGREGOR, R. R. and COWLEY, R. A.): Design and Implantation Trials of Silastic Dacron (or Teflon) Ivalon Mitral Heart Valves. Chapter in book entitled: *Prosthetic Valves for Heart Surgery* by Charles C Thomas, Springfield, Illinois, 1961.
- TISCHLER, MORRIS (with ATTAR, S., COWLEY, R. A. and TAMRES, A.): A New Portable Defibrillator Above Sixty Cycles, *Bull. School Med. Univ. Maryland*, **46**:8, 1961.

# Division of Urologic Surgery

- GALLEHER, EARL P., JR.: Epididymitis, Method of Treatment, *Current Therapy*, 1961.
- MAYS, HOWARD B.: Hypospadias: Complete Correction, *J. Urol.*, **85**: (Jan.) 1961.
- POWDER, JAMES R. (with YOUNG, JOHN D., JR., and NAIB, Z.): Cytological Examination of the Urine Sediment as an Aid to Diagnosis of Epithelial Neoplasms of the Upper Urinary Tract, *J. Urol.*, Nov. 1960.
- YOUNG, JOHN D., JR. (with LIMA, M.): Abdominal Symptoms from Obscure Urologic Condition in Childhood, *Am. Surgeon*, May, 1960.
- YOUNG, JOHN D., JR. (with POWDER, JAMES R. and NAIB, Z.): Cytological Examination of the Urine Sediment as an Aid to Diagnosis of Epithelial Neoplasms of the Upper Urinary Tract, *J. Urol.*, May, 1960.
- YOUNG, JOHN D., JR. (with DRS. REVELL, BORGES, ENTWISLE): An Appraisal of Certain Tests for the Detection of Hypertension of Unilateral Renal Origin, *Ann. Int. Med.*, Nov. 1960.

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Postgraduate Office: Room 201

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The second course in "Basic Electrocardiography" was again oversubscribed by interested physicians, forcing us to reject some applications until next year. The course was given on November 2, 3, 4, 1961 and was enthusiastically received by the 30 physicians in attendance. Dr. Scherlis and the staff of the Cardiology Division did a splendid job in the preparation of the printed and illustrative materials and in the presentation of the course.

The 5-day intensive course in "Neuropathology for Pathologists" given under the direction of Dr. John Wagner, our Professor of Neuropathology, was also oversubscribed, making it necessary for us to return applications, and to think in terms of offering the course again next year. This is an intensely practical course

which requires a great amount of preparation of materials and equipment. Dr. Wagner and his staff deserve our warm appreciation for their effort.

The courses still to be offered this year are:

Endocrinology and Metabolism, January 12, 13, 1962

Advances in Medical Science, January 10-May 16, 1962

Clinical Anatomy, to begin on February 5, 1962

Clinical Cardiology, February 1, 2, 3, 1962

Hematology, March 8, 9, 1962

Full information on these postgraduate courses may be obtained from the office of the Postgraduate Committee.

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## ALUMNI ASSOCIATION SECTION



### President's Letter

*Dear Fellow Alumni:*

It gives me great pleasure to write this letter to advise you how your Alumni is progressing and to give you a snapshot view of our aims and objectives over the ensuing years.

Through the cooperative efforts of the General Alumni we have been able to establish an extremely accurate membership roster and an accurate potential membership roster. Plans are underway for a strong membership drive. Your help is solicited.

With increased membership and a better financial picture we are able to proceed on some other counts, namely:

- 1 Student Loan Fund Activities.
- 2 June Alumni Day—more and better activities.
- 3 Greater assistance to the Faculty in planning a bigger and better University of Maryland School of Medicine.
- 4 A stronger overall voice in University of Maryland affairs.

To each and every Alumni, may I ask that you write to me if you have any ideas for improving the Alumni Association; if you have any questions or feel you wish to offer help on any of our committees.

Remember, the Alumni is your organization. Support its efforts, aims, and objectives, and attend its meetings and functions.

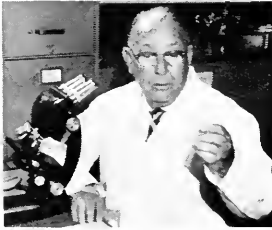
*Sincerely,*

FRANK K. MORRIS, M.D.

*President*

## ALUMNI DAY, THURSDAY, JUNE 7, 1962

APPROPRIATE ATTENTION is being given the program for the annual Alumni reunion by a Committee composed of Drs. C. Parke Scarborough (Chairman), D. Frank Kaltreider, and Ephraim T. Lisansky. A detailed program will be mailed each alumnus and more details will be presented in the April, 1962 BULLETIN.



**Honor Alumnus  
for 1962**

A Committee headed by Dr. Austin H. Wood has nominated Dr. Arthur Raymond Casilli of the Class of 1914 to be the recipient of the 1962 Alumni Honor Award and Gold Key.

Dr. Casilli, a native of Italy, served his internship at the Newark City Hospital and has since practiced pathology in the vicinity of Elizabeth, N. J., for many years. A detailed announcement of the award will appear in the April 1962 BULLETIN.

### **Fifty Year Graduates to Receive Recognition**

At the ceremonies on Alumni Day, members of the Classes of 1912 will receive their 50-Year Certificates. It is highly desirable that as many of the Class of 1912 as can make the trip to Baltimore will be present at the ceremonies to receive in person the 50-Year Honor Certificate. The Alumni of the Class of 1912 of the three schools follows.

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## MINUTES OF BOARD OF DIRECTORS, MEDICAL ALUMNI ASSOCIATION

*September 26, 1961*

The initial meeting of the Board of Directors for the current year was held in the Baltimore Union, Tuesday evening, September 26, 1961. Roll call revealed only one absentee. The agenda dealt primarily with discussion of plans for the year's activities.

In view of the broad scope of pending development on the campus, it was voted unanimously to invite Dr. Albin O. Kuhn, Executive Vice President, University of Maryland, and Mr. Lad F. Grapski, Director of University Hospital, to attend the October meeting and discuss existing and contemplated plans for campus improvements. A gift of \$250.00 to the Student Loan Fund from an alumnus, Class of 1935, was reported.

It was reported that the Class of 1936, Dr. Walter Karfgin, Treasurer, at its 25th reunion, established a fund through voluntary subscription which will be funneled into the Student Loan Fund.

*October 24, 1961*

The Board of Directors met in Room #202, Baltimore Union, Tuesday evening, October 24, 1961, Dr. Frank K. Morris, presiding. Dr. Albin O. Kuhn, Executive Vice President of the University of Md., and Mr. Lad F. Grapski, Director of University Hospital, were invited guests and each spoke at length and with clarity on the planned growth of the Baltimore Campus, and retired. Minutes of the meeting of Sept. 26, 1961,

approved as reported and circulated. Committee appointments were announced, viz: Dr. Edward F. Cotter, Chairman, Dr. George H. Yeager, Dr. Theodore E. Woodward, and Dr. Hugh McNally, to study and report on the feasibility of coordinating all scientific meetings, to the end that visiting alumni would be able to take advantage of all programs.

*Honor Award Committee:* Dr. Austin Wood, Chairman, Dr. J. Morris Reese, Dr. S. Edwin Muller.

*Alumni Day Activities:* Dr. C. Parke Scarborough, Chairman, with additional personnel of his selection to be added and reported to Alumni Office.

*Historical Data on Distinguished Alumni:* Dr. Gibson J. Wells, Chairman, and Dr. John E. Savage.

The question of a file cabinet to house accumulating photographs which have both sentimental and historic value was discussed and the Executive Director was instructed to obtain prices and report at next meeting.

A request from Editor of *Terrae Mariae Medicus* for permission to use Alumni addressograph plates for making contact with alumni was granted. A donation of \$25.00 to the Student Loan Fund by an alumnus, Class of 1909, was reported. The meeting adjourned at 9:30 P.M.

WILLIAM H. TRIPLETT for  
FRANCIS J. BORGES, *Secretary*

# MEDICAL ALUMNI ASSOCIATION OF THE UNIVERSITY OF MARYLAND

## Statement of Receipts and Expenditures for the Fiscal Year Ended April 30, 1961

### EXPENDITURES:

BALANCE, MAY 1, 1960:			
Bulletin Fund		\$ 1,538.00	
Deficit—Alumni Fund		357.09*	
Remainder	\$ 1,180.91		\$4,069.50
RECEIPTS:			
Alumni Fund:			
Dues			6.88
Banquet			500.00
Overpayments:			116.56
Dues	\$ 15.00		2,924.92
Banquet	30.00		619.69
Interest			185.50
Donation			555.29
Refund—Fidelity bond			467.00
			86.49
			75.00
			85.44
			60.00
			45.00
			25.00
			45.00
			58.25
Total—Alumni Fund			\$ 9,925.52
Bulletin Fund:			
Fee—Dr. John A. Wagner			\$1,250.00
Bulletin Account	19,005.83		4,007.00
Total Receipts			5,257.00
TOTAL CASH TO BE ACCOUNTED FOR:			15,182.52
Alumni Fund			
Bulletin Fund			\$ 940.00
Total	\$20,186.74		4,064.22
BALANCE, APRIL 30, 1961:			
Bulletin Fund			
Alumni Fund			
Total			\$ 5,004.22

\* Red figures

PLEASE TEAR OUT

## ALUMNI NEWS REPORT

TO THE BULLETIN:

I would like to report the following:

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### SUGGESTIONS FOR NEWS ITEMS

American Board Certification  
Change of Address  
Change of Office  
Residency Appointment  
Research Completed  
News of Another Alumnus  
Academic Appointment  
Interesting Historic Photographs

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Name \_\_\_\_\_

Address \_\_\_\_\_

Class \_\_\_\_\_

*Send to*

Bulletin—School of Medicine  
University of Maryland  
31 S. Greene St.  
Baltimore 1, Md.

TEAR OUT

# Let Not the New Displace the Good of the Old

WALTER D. WISE, M.D.\*

MR. PRESIDENT, President-Elect Dr. Morris, Colonel Stone, Fellow Alumni and Guests:

It gives me added pleasure to receive this award from the hands of Dr. Siwinski who is still fulfilling the promises of his student and resident days.

This honor is received with great humility and much appreciation. It is noted that the bestowal is based upon "outstanding contributions to the science of medicine either in the applied field of clinical medicine or in pure scientific research." The present recipient cannot qualify in the latter category and any qualifications in the former have been attained by the privilege of a long career in which to work, to teach, and to take part in a modest way in surgical and hospital activities and medico-civic affairs of the city and state. One of the pleasant positions that came to me was the Presidency of this organization in 1942-43.

The long career mentioned has seen all the changes relating to our profession that have occurred in this century except for the first few years. These developments have been recounted many times and everyone present knows the splendid record of almost unbelievable achievements. Naturally, there have been errors and failures or at least there have been things that could have been done better, but the progress has been phenomenal (a superlative is justified).

On an occasion such as this, you have a right to expect from one, who is well along in his 8th decade, some profound philosophical thoughts. Though they could not be treated in the manner mentioned, many subjects do come to mind and an attempt to discuss some of them is alluring but would require too much time and would, no doubt, be unfruitful. Instead, it seems better to be pragmatic and stress a few things that are obvious and perhaps dull but important. My text today is the care of the private patient.

It is realized that older people are by and large conservative and critical and the younger know this—discount the advice given by their elders and rush on—for the most part—doing well. However, the last few decades in retrospect make one wonder if there has not been in many areas too much emphasis on speed, pressure, agitation, change, excess; seemingly not always giving due consideration to underlying principles and allowing more time for consideration. This seems a worldwide tendency. When such a trend occurs in so many activities, even the professions may be drawn in. Limiting our thinking to our profession one cannot, of course, wish for slowness in the work towards discovery of remedies for disease or illness of any kind, but one cannot help questioning whether there has not been too much hurry in changing several areas of medical and surgical training and whether a somewhat slower, more gradual approach would not have resulted in a better joining of the art and science of medicine and with more likelihood of keeping up

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Read June 8, 1961 before Alumni Association, School of Medicine, University of Maryland.

\*Recipient of 1961 Medical Alumni Award and Gold Key.

our numerical strength and producing a better fitting of the profession and hospitals into the general economy. Pavlov spoke of passion-gradualness.

As indicated, all the progress mentioned has not been attained by sailing over smooth seas. There have been many times when there were head winds necessitating many tacks. At times the waters were rough and severe storms were far from unknown. The reference is more to educational and administrative matters than to strictly scientific work and research. Unfortunately, all is not yet smooth sailing. Winds and tides do not have to be very strong, if running in opposite or cross directions, to produce choppy waters and some turbulences are still encountered.

Seen and heard from a stand in the aloofness of almost complete retirement, the greatest number of major complaints seems to involve the problems of hospital care of patients. Few have been personally treated by the writer in the past several years but he has many lay friends interested in various hospitals, a large number being board members and, unfortunately, many of them are in the age bracket that seems to result in much use of hospitals as patients and there is a surprising amount of dissatisfaction with, at times, bitter criticism.

With the increased and increasing general population, greatly increased number of hospitals and beds with the ratio of the number of house-officers deemed necessary for a given number of beds, the increased number of teachers per medical student and the far greater number of salaried positions for doctors, the calls of the services, etc., there is such a dearth of medical graduates as to be far from meeting the needs, leaving many hospitals with no interns and insufficient

residents and many communities without adequate coverage. It is reassuring to note that the University of Maryland Medical School and the Johns Hopkins Medical School are going to augment their student enrollments and it is hoped the plan will become universal and be productive of great good.

The old, old law of supply and demand applies here as elsewhere and to refer again to hospitals, the cost for house-officers' salaries, if the hospital is fortunate enough to have a goodly number, has increased so that it is a very large item and adds much to the general cost of the care of patients. Medical training involves 6, 7, 8 or more years. During the first 4 years the student pays the medical school. After this, for his elaborate graduate training, the hospital pays the student, who now has an M.D. and is a house-officer. For institutions with large endowments, this expense may, of course, be more easily met than in the case of a hospital which has to earn its expenses entirely. In a hospital of 300 beds with less than the desired number of house-officers, the yearly payroll for these in 1960 was \$149,000. This figure is for salaries only and does not include expense of graduate training or research. Some hospitals are forced to pay even higher salaries. It has been suggested by high authority that there be a very substantial increase over the present rates. Hospitals, without heavy endowments of some kind and whose clientele consists of private patients in moderate income brackets and those who depend upon private or compensation insurance, plus city and state patients, are likely to have difficult times to meet their expenses, especially if they have a mortgage or other indebtedness. A phase of this matter that does not seem to have received the attention that it deserves is that the

private patient is carrying more than his proper share of this (and all other expenses) and who, in most instances, under the present setup of graduate training, is receiving the least attention from the house-officers. This comment has been heard in various cities and has been volunteered by doctors from other countries. The modern type of nursing in our hospitals has been discussed on a previous occasion,\* and will not be considered here but I am confident that it is responsible for some of the criticisms that follow.

An analysis of hospital receipts naturally cannot be discussed in detail here but there is little doubt that the subject of the cost to the private patient needs much consideration and certainly there is no doubt about the complaints from patients and doctors about the indifference of those who may be called the intramural forces, male and female. With the ever increasing flow of patients to hospitals—with the ever increasing reluctance of doctors to pay home visits and thus constantly adding to hospital patients and visiting physicians, it is suggested that herein lies a potentially difficult situation. The graduate training program is very necessary but unless it is administered with great diplomacy and is carefully conducted, there is danger of its being so interesting and time-consuming and possibly so all important that the patient, who is beyond the perimeter of a class or clinical discussion, being in a private room, is relegated to a position of unimportance, as may be his visiting doctor. This discrimination is growing and could be an ugly line of cleavage.

You must not be kept much longer but it is desired to take advantage of

this opportunity to point out to you that it would be well worth while for the medical profession to expend great effort towards increasing the number of medical graduates and protecting the interests of patients, particularly the private ones. If not, it is feared that something of a nature not desired by our profession will eventuate.

As stated, the reactions obtained by the speaker in the past few years are mostly from a rather large acquaintance of lay people and these reactions emphasize the thought that the ever present task of the medical profession is to balance science with its application. At the moment it seems that the application in certain areas is on the lighter side of the scale. This refers more especially to the hospital care of the ordinary run of the mine type of condition. Such patients may be of little or no scientific interest, the diagnosis may be perfectly plain and the treatment well known but this does not remove entirely the need for attention to such a case. One hears much about "team work." This is most valuable and life saving but many patients do not need it in its full blown sense. However, they do or may need ordinary attention involving personal interest and it happens too often that routine visits and orders are not as assiduously attended to as formerly.

It is hoped that no offense will be taken at these few simple comments. The temerity to mention them has arisen from the long and somewhat unusual opportunity to obtain the reactions of the public as well as our profession and from the firm conviction that the primary purpose of most hospitals is the treatment of the patients and further that the current patient in a given hospital has distinct rights inherent upon being present, not future, and certainly has by all sensible

\* Presidential address, Medical and Chirurgical Faculty, April 24, 1951.

rules precedence over future patients in the same hospital or anywhere else, who may be treated by those whom he has financially aided in getting their training. Without placing blame, it is frustrating in this country of great efficiency in so many ways to hear these complaints and be unable to implement as well as might be the great knowledge we have of medicine, surgery and nursing.

Another step toward state medicine is taken when hospitals lose the respect and affection of the private patient from whom they must get their chief support. We must not aid in drying up the source of gifts and endowments.

The opinions expressed came to a large extent from people connected with or deeply interested in hospitals in various cities—three of them prominent in Baltimore (all north of the line of Pleasant Street) and three are among the most outstanding ones in New York City. Some of the complainants are in high positions in their respective institutions.

These problems and many more are worthy of your serious thought and it is suggested that their solution is going to require deep study by all the medical profession. You, who are interested in hospitals in smaller cities and those in large cities not connected with medical schools, should give the benefit of your opinions derived from your observations in your daily practices.

It is a great pleasure to be here under these circumstances. Again let me tell you how grateful I am for this high honor. This Alumni Association is a large and influential group and I am sure it will aid the able Faculty of the Medical School to continue the splendid advances being made despite the conditions in which all hospitals find themselves. The problems mentioned are difficult ones but with understanding and diligence can, no doubt, be solved. The desire for a better understanding is the reason for bringing up a disagreeable subject on a pleasant occasion.

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### Correction

IN THE obituary of the late Maurice C. Pincoffs, a sentence appears on page viii of the April 1961 BULLETIN as follows: "Because his grades at Rush Medical College could not be counted toward qualifying for an internship in The Johns Hopkins Hospital, he was not eligible to apply for such a position even if he had desired it."

The BULLETIN is informed that this statement is erroneous and should be completely deleted from the text.



# Class

## NOTES

ELSEWHERE in this edition you will find a "tear out" page, for reporting *Alumni News* to the BULLETIN. This is not an idle gesture.

*Your achievements, fellow alumnus, are of interest to your classmates. They constitute a reward to the faculty, are a challenge to the younger physicians, and are an item of prestige for the University. Please cooperate with us by forwarding news of yourself or any alumnus to the BULLETIN. Thank you.*

### P & S 1897

**William Henry McGreevy** of Jamaica, Long Island, N. Y., died April 22, 1961. Dr. McGreevy was 95.

### B. M. C. 1897

**Benjamin Franklin Moyers** of 6901 Pineway, Hyattsville, Md., died of cerebral thrombosis and arteriosclerotic heart disease on August 10, 1961. Dr. Moyers was 90.

### B. M. C. 1898

**W. E. Echols** of Richwood, W. Va., died on November 17, 1961.

### Class of 1901

**Rear Admiral B. H. Dorsey**, (M.C.) U.S.N. (Ret.), of 3500 Newark St., N.W., in Washington, D. C., writes: "—In the October number of the BULLETIN, I read with pleasure the brief biography of the late Dr. William Royal Stokes. Dr. Stokes was my teacher in bacteriology at the Medical School of the University of Maryland. I remember

him as an excellent teacher and a man of great ability and charm. I graduated in the Class of 1901. Truly yours, B. H. Dorsey."

### Class of 1902

**Charles Edward Snyder** of Stevensville, Md., died May 11, 1961. Dr. Snyder was 81.

### B. M. C. 1903

**A. Lee Hickok** of Birchardville, Pa., died July 16, 1961, at the age of 84.

### Class of 1903

**Frank S. Cooper** of 1301 32nd St., S.W., Roanoke, Va., died recently.

### B. M. C. 1904

**Emmet Richelieu Bucklew** of 1840 Terrace Ave., Knoxville, Tenn., died recently.

### P & S 1904

**John Flynn** of 910 Plum St., Erie, Pa., died June 18, 1961. Dr. Flynn was 87.

### Class of 1905

**John W. Parker, Jr.**, of Jacksonville, Fla., died June 6, 1961, aged 81.

**John Pierson** of 1107 St. Paul St., Baltimore, died on September 5, 1961.

### Class of 1906

**Henry Blank** of 1785 Hanover St., Aurora, Col., died recently.

### Class of 1907

**John Joseph Egan** of 83 Willow St., Waterbury, Conn., died recently.

**James Joseph O'Connor** of Olyphant, Pa., died recently.

**P & S 1908**

**George Delbert Johnson** of 517 9th St., Huntington, W. Va., died June 6, 1961. Dr. Johnson was 78.

**B. M. C. 1908**

**Scott J. Titus** of Jefferson, Pa., died on February 18, 1961 of carcinoma of the stomach. Dr. Titus was 78.

**P & S 1909**

**Harold Henderson Talbott** of Toronto, Ohio, died on July 12, 1961. Dr. Talbott was 76.

**Class of 1909**

**Cleland Granger Moore** of Glendale, Calif., died August 12, 1961. Dr. Moore was 78.

**Class of 1910**

**James Costas Diaz** of St. Luke's Memorial Hospital, Ponce, Puerto Rico, died recently.

**Class of 1914**

**William Brandon** of 213 S. Center St., Statesville, N. C., died June 8, 1961 at the age of 72.

**Class of 1915**

**James I. Justice** of Route 1, East Liberty, Ohio, died July 12, 1961.

**Class of 1916**

**Maurice Feldman** of 7121 Park Heights Ave., in Baltimore, died on the 21st of October 1961. He was 68. Death was due to the complications of heart failure.

For many years Dr. Feldman served as Assistant Professor of Gastroenterology at the School of Medicine and in this

specialty he was also certified by the American Board of Gastroenterology. Dr. Feldman was the author of four editions of a textbook entitled *The Clinical Roentgenology of the Digestive Tract* and at the time of his death a fifth edition was in preparation. For many years Dr. Feldman was active in the practice of radiology. He was also in considerable demand as a lecturer, both at home and abroad. He was the founder of the Medical Research Club of Baltimore and was the author of many scientific papers concerned principally with his own research relating to the roentgenology of and treatment of diseases of the gastrointestinal tract. He is survived by his wife, Mrs. Bertha Feldman and two sons, Dr. Charles Feldman of Alexandria, Va., and Dr. Maurice Feldman, Jr., of Baltimore.

**Ellsworth E. Light** of Alton Bay, N. H., died September 3, 1961.

**Class of 1917**

**William C. Williams** of Hillsville, Va., died on March 23, 1961. Dr. Williams was 73.

**Class of 1919**

**Francisco Franceschi Caballero** died on September 4, 1961 at his home in San Juan, Puerto Rico. Death was due to coronary thrombosis. Dr. Caballero specialized in gastroenterology.

**Charles R. Goldsborough** of 2923 St. Paul St., Baltimore, died recently.

**Class of 1922**

**George Gregory Keefe** of 34 Sisson Ave., Hartford, Conn., died November 27, 1961.

**Lawrence Wells Lawson** of Logan, W. Va., died recently.

**Class of 1923**

**Marion Y. Keith** of 1603 Carlisle Rd., Greensboro, N. C., died recently.

**Class of 1924**

**A. L. Daughtridge** of 144 Coast Line St., Rocky Mountain, N. C., died on May 10, 1961. Dr. Daughtridge was 60.

**Class of 1929**

**Jacob H. Conn** was presented the 1961 Bernard B. Raginsky Award on the occasion of the 13th Annual Meeting of the Society for Clinical and Experimental Hypnosis. The bronze plaque is inscribed "for leadership and achievement to Jacob H. Conn, distinguished psychiatrist, teacher, scientist, and pioneer in the field of hypnotherapy." Dr. Conn is the second recipient of the award, the first recipient being Dr. Lewis R. Wolberg of New York.

The former president of the National Society for Clinical and Experimental Hypnosis, Dr. Conn is Chairman of the Visiting Staff of the Seton Psychiatric Institute in Baltimore; is an adjunct attending at the Sinai Hospital and serves as Assistant Professor of Psychiatry at the Johns Hopkins University School of Medicine. He is the author of many publications and serves on the editorial staff of several scientific journals.

**Morris Bernard Schreiber** of 3506 Ellamont Rd., Baltimore, Md., died recently.

**Morris Tannenbaum** of 1750 Grand Concourse, Bronx, N. Y., died recently.

**Class of 1931**

**Susanne Sterling (Mrs. Robert Ashton)** of 905 St. Georges Rd., Baltimore, Md., died on November 12, 1961. Dr. Sterling was 52.

A native of Crisfield, Md., she served her internship at the Hospital for the Women of Maryland and the Baltimore City Hospitals and was later resident in obstetrics at the Union Memorial Hospital.

**Class of 1935**

**John Warren Albrightain**, Captain, Medical Corps, U. S. Navy, died recently. At the time of his death he was stationed at the Bureau of Medicine and Surgery in Washington.

**Class of 1936**

**David B. Greengold**, 67 Commonwealth Ave., Pittsfield, Mass., drowned accidentally while fishing in Lake Champlain on June 25, 1961. Dr. Greengold was 50.

**Class of 1938**

**Aaron Feder** has been promoted to full Visiting Physician on the Second (Cornell) Medical Division, Cornell Medical School. Dr. Feder also has been appointed to membership on the Medical Board of Bellevue Hospital. For a number of years he has served as Clinical Associate Professor of Medicine at the Cornell University School of Medicine.

**Milton Layden** is located in the Wynnewood Towers, Baltimore 10, Md., and engaged in private practice of Psychiatry.

**Class of 1939**

**Stephen Lee Magness**, 21 Overhill Rd., Catonsville 28, Md., is Assistant Medical Director, Chief of Psychotherapy, Taylor Manor Hospital, Ellicott City, Md.

### Class of 1940

**Merton T. Waite**, 121 Cathedral St., Annapolis, Md., is recovering from recent surgery and expects to return soon to his surgical practice.

### Class of 1942

**Jose Davila Lopez** died on June 24 at his home, 28 Marina St., Ponce, Puerto Rico. Death was due to coronary thrombosis. Dr. Lopez was a diplomate of the American Board of Orthopedic Surgery and a Fellow of the American College of Surgeons. He was a member of the American Medical Association and of the Puerto Rico Medical Association.

### Class of 1943

**Josephine Renshaw** has been elected second Vice President of the Medical Society of the District of Columbia. Dr. Renshaw recently presided at a session on Tranquilizers and Antidepressants on the occasion of the 29th Annual Scientific Assembly of the Medical Society of the District of Columbia, November 28, 1961.

**Harry E. Walkup**, Assistant Director of the Surgical Service, U. S. Veterans Administration Hospital, Washington, D. C., has been appointed Director of Research of the American Thoracic Society-National Tuberculosis Association. Dr. Walkup assumed his new position September 1, 1961.

The new appointment will involve development of policy and responsibility for the administration of the Society's research program and for maintaining contact with and giving consultation to constituent and affiliated associations concerned with thoracic research.

Prior to his appointment at the Veterans Administration central office in

February, 1961, Dr. Walkup was Chief of the Surgical Services and Assistant Director for Professional Services in charge of research at the Veterans Hospital in Oteen, N. C.

### Class of 1944

**Donald W. Mintzer** has announced the removal of his office from 1922 East Belvedere Avenue in Baltimore to 3009 Evergreen Ave. in Baltimore, Md.

### Class of 1945

**Stanley R. Steinbach** has announced the opening of his office for the practice of internal medicine at The Eleven Slade Apartments, 11 Slade Ave., Baltimore 8, Md.

### Class of 1946

**August Kiel** of 1202 St. Paul St. in Baltimore, died recently. Death was due to a pontine glioma.

**J. Howard Latimer**, 3574 East Cliff Drive, Salt Lake City 17, Utah, writes: "Have been associated with the VA doing Internal Medicine and Psychiatry. Have been recalled to active military duty with Utah National Guard." He will be temporarily stationed at Ft. Lewis, Washington.

### Class of 1947

**Frederick Stephen Senning** of Arnold, Md., died recently.

### Class of 1948

**James F. Condron** of 717 S. 55th St., Philadelphia, Pa., died recently.

**W. G. Thuss, Jr.**, has opened his office at 2124 4th Ave. South, Birmingham, Ala.

**Class of 1949**

**Harry M. Mattax** of 711 Camden Ave., Salisbury, Md., died September 15, 1961.

**Class of 1952**

**Phin Cohen**, 100 Goddard Ave., Brookline, Mass., was Board certified in Medicine in 1960, and a member of Senior Staff of Peter Bent Brigham Hospital, Boston; also on faculty of Harvard Medical School. He boasts three children: Roger 7, Eric 5, and Julia 1 year.

**Ursula T. Slager** has been appointed Associate Pathologist at the Orange County General Hospital, Orange, Calif. Dr. Slager also serves as Assistant Clinical Professor of Pathology at the University of Southern California School of Medicine.

Being interested in the pathologic problems of flight and entry into outer space, Dr. Slager has recently completed the manuscript of a book entitled *Space Medicine* which will appear in 1962 and which will be published by Prentice-Hall, Inc.

**Class of 1953**

**Leonard H. Flax**, who practices general surgery in Baltimore, is the author of a recent article entitled "A New Surgical Drain" which appeared in the *Journal of the American Medical Association* on July 15, 1961.

**Class of 1954**

**Stamford A. Lavine**, 1835 Eye St., Washington, D. C., is doing Orthopedic Surgery. He is the father of two boys.

**Class of 1955**

**Paul C. Hudson**, who completed his residency in neurologic surgery at the

University Hospital on July 1, 1961, has announced the opening of his office for the practice of neurologic surgery at 2 East Read St., in Baltimore, Md.

**Alred E. Iwantsch**, 22982 Gary Lane, St. Clair Shores, Mich., writes: "Senior resident in Ophthalmology at the Kresge Eye Institute and Detroit Receiving Hospital under Dr. A. D. Ruedemann, Sr."

**Yale Lee Klugman**, North Carolina Memorial Hospital, Chapel Hill, N. C., is now in USAF taking residency in Psychiatry.

**Class of 1956**

**Henry A. Baer**, 163 Lebanon St., Melrose, Mass., is Senior Resident in Surgery at Chelsea Naval Hospital.

**Richard G. Farmer**, US Naval Hospital, Great Lakes, Ill., reports: Internship Milwaukee County Hospital, Milwaukee, Wisc., 1956-57; residency in Internal Medicine, Mayo Clinic, Rochester, Minn., 1957-60.

**Marshall Franklin**, 2001 Cliffview Rd., Cleveland, Ohio, Clinical Associate in Cardio-pulmonary laboratory, Cleveland Clinic, Married, Feb. 2, 1958; two sons: W. Gregg, November 20, 1959 and Marshall Mark, June 16, 1961.

**Albert V. Kanner**, 110 E. Main St., Madison 3, Wisc., is Clinical Instructor in Ophthalmology, University of Wisc., School of Medicine.

**Sheppard G. Kellam**, National Institute of Mental Health, Bethesda, Md., and is associated with Dr. Jack Durrell (NIMH) in the study of sociopsychological and metabolic factors influencing symptom fluctuation in psychotic patients.

**C. Herschel King**, Rt. #1, Box 348, Glen Arm Rd., Glen Arm, Md., has completed residency in Anesthesiology at

University (Md.) Hospital and will enter private practice in Baltimore with a group.

**H. Coleman Kramer**, 905 Fairway Dr., Miami Beach, Fla., is practicing internal medicine and cardiology; office, 407 Lincoln Rd., Miami Beach, Fla.

**M. H. M. Lee**, 1605 Hearst Ave., Berkeley, Calif., is attending School of Public Health, University of California and working toward M. P. H. He is presently with the Heart Disease Control Program, U.S.P.H.S.

**Clark Lamont Osteen**, 2419 William St., Augusta, Ga., will complete his residency in Anesthesiology in January 1962.

**William M. Palmer**, 7456-A O'Reilly St., El Paso, Tex., is Assistant Chief, Department of Pediatrics, William Beaumont General Hospital.

**George T. Smith** is in the Department of Pathology, Peter Bent Brigham Hospital, Boston, Mass.

**Edwin W. Whiteford, Jr.**, Wheeler School Road, Whiteford, Md., returned to home town from duty in the Air Force and is engaged in General Practice; one child, Judy Beth, Oct., 1960.

**Robert Lee Wright**, 207 Robinson Bldg., Elyria, Ohio, is engaged in practice of Ophthalmology.

#### Class of 1957

**Marvin S. Arons**, 1919 East-West Highway, Apt. 102, Silver Spring, Md., writes: "Have completed two years at the National Cancer Institute and have had six research papers accepted for publication. Permanent home, 234 Wakelee Ave., Ansonia, Conn."

**Harvey R. Butt, Jr.**, 820 Monroe St., Apt. 111, Annapolis, Md., completed residency in Anesthesiology at Ohio State University in June, 1960, where a Master of Medical Science Degree was conferred in August, 1960. Elected Fellow in Anesthesiology by the American College of Anesthesiologists in Sept. 1960. Now in full time practice of Anesthesiology and associated with a group. Daughter, Susan Elizabeth, born, August, 1960.

**Marvin Allen Feldstein**, 2417 Overlook Rd., Cleveland 6, Ohio, is resident in Internal Medicine at Cleveland Clinic.

**James P. Laster**, Division of Neurology, University of Washington, Seattle 5, Wash., writes: "Spent two years in England, 15 months doing research in obesity and 9 months at 'Queens Square,' doing postgraduate work in Neurology. Presently at Seattle for a three-year program in Neurology."

#### Class of 1958

**Howard Daniel Bronstein**, New York Hospital, Cornell Medical Center, writes: "Two year fellowship in gastroenterology."

**Raymond Frank Caplan**, Philadelphia General Hospital, Dept. of Cardiology, Philadelphia 4, Pa., is NIH Research Fellow in Cardiology.

**Ernest E. Moore**, Capt., M.C., USA, 11 Wheeler Pl., Ft. Stewart, Ga., is on active duty with U. S. Army.

**Granger G. Sutton, Jr.**, 2631 White-wood Rd., Ann Arbor, Mich., was discharged from active military service 24 June 1961 and began residency in Neurology at University of Michigan, July 1, 1961.









## Dean's LETTER

### MEDICAL SCHOOL SECTION

*Dear Members of the Alumni and Friends of the Medical School:*

Recently there has been concern expressed over the number of qualified applicants to U. S. medical schools. However, since the 1930's there have been about two applicants for each student actually enrolled. The only exception to this was the immediate postwar years when many returning veterans with G. I. benefits applied for admission. For the last eight years the proportion of applicants to medical school to young people 20 years of age has remained almost constant.

During 1960 and 1961 studies of college student preferences for life time profession choices have been made by: (1) O'Dowd, Donald D., and David C. Beardslee, *College Student Images of a Selected Group of Professions and Occupations* (Cooperative Research Project No. 562 (8142), U. S. Office of Education, April 1960), (2) The U. S. Armed Forces; these studies showed the medical careers stood first in the choice of young people at the age of selection of a career.

These facts seem to indicate clearly that medicine has not lost its attractiveness as a profession, but the decision to select it is being unfavorably influenced because of the high cost of medical education. The large number of excellent students seeking admission to medical school in the period 1950 to 1954 was due to the fact that the G. I. benefits solved the financing of medical education for many individuals and allowed them to select a career of their first choice.

H. R. 4999 introduced into the current session of Congress by Congressman Harris of Arkansas provides for medical scholarships as well as aid to medical education. Its enactment would do much to provide for first-class programs of medical education in the future, and would go a long way towards allowing good students to select a medical career.

Sincerely,

WILLIAM S. STONE, M.D.  
Dean

## **Dean Stone Cites Projected Physician Needs in Next Decade**

AS A PART of the University's "vanguard of thought" series, Dr. William S. Stone, Dean of the School of Medicine, has issued a memorandum concerning Maryland's needs for physicians in the predictable future.

Dr. Stone has been a member of a State Planning Commission which has recently concluded studies on the development and future of medical education in the State of Maryland.

In a recent release, Dr. Stone has stated "American standards of medical care are based on an average of about 130 physicians per 100,000 population, as calculated for the period 1921 to 1958. Maryland has fared slightly better. The State's two medical schools have graduated about 165 physicians per year, many of whom have remained in the State of Maryland. These graduates, along with physicians from other states, have kept our physician-population ratio to about 130-135 per 100,000 population.

"The present population of the State of Maryland is estimated at 3.1 million; by 1975 a prediction of 4.6 million, or a growth of about 1.5 million (50%) is estimated. It is obvious that the total number of practicing physicians must increase and, therefore, the number of medical school graduates must be increased if the same ratio is to be maintained.

"To maintain this ratio, Maryland will need 1,956 more physicians by 1975 or an average of 140 more additional graduates each year. Influx from other states cannot be depended upon, because of rapid population growth in other areas as well. Next, 11 states have no medical schools and three have only two-year schools. Some of the deficiency might be over-

come by immigration from other lands, but in many other countries the physician ratio is far below that of the United States, so the outlook from the immigration point of view is not favorable."

It has been also the policy of the United States to help other nations in bringing their medical care up to acceptable standards, so that additional physicians will be needed in the United States for practice abroad.

Dr. Stone stated that the study of medicine involves from three to four years of collegiate preparation, four years of medical school, and several years of internship make the process of producing a physician an extremely slow one; therefore, demanding a considerable advance planning. As its part in the solution of the oncoming problem, the University of Maryland plans to increase its freshman class in 1962 from 100 to 128 students. Even with this increase, the State will fall short by 300-350 physicians by the time the estimated peak requirement is reached during the year 1975. Dean Stone concluded with a statement that other means must be sought to increase the physician potential of the State of Maryland in order to match future demands.

## **Dr. Stone Attends National Meeting of Medical Education Defense Coordinators**

DR. WILLIAM S. STONE, Dean of the School of Medicine, and DR. VERNON M. SMITH, Medical Education for National Defense Coordinator, represented the School of Medicine at the Coordinators Conference held in Chicago on February 3, 1962. Dr. Stone addressed the meeting as Chairman of the Committee on Medical Education for National Defense of the Association of American Medical Colleges.

### **Joint Medical-Surgical Society Proposed**

IN A LETTER recently circulated to all former faculty members, attending staff, and house officers of the University Hospital, Dr. Theodore E. Woodward, Chairman of the Committee on Preliminary Arrangements, announced a decision to seek unification of two groups of the University Hospital-affiliated positions in an attempt to hold a single annual meeting.

In 1961, a University Hospital Surgical Association was organized. It is now proposed that the two societies meet jointly for certain programs of mutual interest with sub-sections meeting separately during a one- or two-day session.

Early returns from a questionnaire indicate considerable enthusiasm for the plan. Accordingly, a tentative program for the Friday, May 4 session has been proposed (see pages vi and vii).

Members of the organizing committee for the Department of Medicine include Drs. Edward F. Cotter, James R. Karns, Harry M. Robinson, Jr., Leonard Scherlis, Patrick B. Storey, and Theodore E. Woodward (Chairman).

### **Dr. Sarah E. Stewart 1962 Band Lecturer**

DR. SARAH E. STEWART of the National Cancer Institute's laboratory of viral oncology, was the 1962 Alice Mesinger Band Memorial lecturer in hematology. Dr. Stewart is known for her co-discovery of the polyoma virus now known to be responsible for many different types of mouse neoplasms.

The lecture was held on March 8 at 8:30 P.M. in the Gordon Wilson Hall at the University Hospital.

### **New Child Psychiatry Unit Inaugurated**

HOUSED on the 4th Floor of the Psychiatric Unit in Ward G, a new renovated area has been dedicated for the observation and therapy of 14 children as in-patients. It is expected that the minimum length of stay will be approximately three months. During this period of hospitalization, there will be the usual opportunities for children to play, go to school, watch television, and all the other things that a child would ordinarily do. During these activities carried on within the unit, the children will wear their own clothes and will be made to feel not a part of the hospital. Close observation of the behavior problems of the children then will be possible according to Dr. Frank T. Rafferty, Director of the Unit. Dr. Rafferty was formerly Head of Child Psychiatry at the University of Utah School of Medicine.

### **Physical Medicine and Rehabilitation Residency Training Program Approved**

DR. GEORGE ENTWISLE, Professor of Preventive Medicine and Rehabilitation, has announced the approval of a residency training program in physical medicine and rehabilitation. The three-year training program established is affiliated with the Montebello State Hospital. The first resident entered training in July, 1961.

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# Faculty

## NOTES



DR. PATRICK B. STOREY, Associate Professor of Medicine and Chairman and Director of Postgraduate Studies of the University of Maryland School of Medicine, confers with Edward R. Murrow, Director of the U. S. Information Agency, in Washington, D. C., before leaving for a tour of the Soviet Union with the USIA exhibit, "Medicine—USA."

Dr. Storey, who speaks and writes Russian, was selected from a number of physician applicants to head the exhibit of American medicine which will be shown in Moscow, Kiev, and Leningrad. Dr. Storey will return to his duties at the University in July.

A new book by DR. JOHN C. KRANTZ, JR., of the Department of Pharmacology, entitled *A Portrait of Medical History*, has just been published by John D. Lucas Printing Co. of Baltimore. Dr. Charles H. Best of Toronto has written the foreword.

DR. FRANK H. J. FIGGE, Professor of Anatomy, retired as President of the Maryland Division of the American Cancer Society, an office Dr. Figge has held for several years. Dr. Figge will serve as Chairman, Board of Directors.

DR. JOSEPH WORKMAN, head of the Radio-isotope Division of the Department of Medicine, addressed the Kent County (Delaware) Medical Society at its regular meeting, February 11, 1962.

DR. ROBERT G. GRENELL, currently on leave from the School of Medicine, is in India on a one-year assignment with the United States Agency for International Development, assisting with the teaching, research, and general development of India's medical colleges. Dr. Grenell has been assigned to Travancore University's medical college at Trivandrum in Southern India.

DR. WILLIAM S. STONE, Dean, has been appointed a member of the Board of School Commissioners, Baltimore City.

### Faculty Active at G. P. Meeting

SEVERAL MEMBERS of the Faculty of the School of Medicine have participated in the recent 13th Annual Scientific Assembly of the Maryland Academy of General Practice. Dr. Milton S. Sacks, Professor of Clinical Medicine and Head of the Division of Clinical Pathology, spoke on the subject of "Drug Induced Blood Dyscrasias." Dr. R. Adams Cowley, Associate Professor in the Department of Surgery and Head of the Division of Thoracic Surgery, discussed the "Use of Surgery in the Correction of Heart Defects." Dr. Henry J. L. Marriott, Associate Professor of Medicine, spoke on the subject of "Clinical vs. Electrocardiographic Diagnosis of Heart Disease." Dr. Patrick C. Phelan, Associate in Surgery, spoke on "New Treatment of Burns," while Dr. C. Parke Scarborough, Assistant Professor of Plastic Surgery, discussed the "Role of Plastic Surgery in the Practice of Medicine." Dr. F. Ford Loker, Associate in Surgery, discussed "Minor Surgical Office Procedures."

# Grants

## General Research Support Grant from N.I.H.

DR. WILLIAM S. STONE, Dean of the School of Medicine, has reported a grant of \$211,866 to be used in the development of experimental facilities including veterinary supervision of animal colonies, central laboratory services for support of research, small research grants to students and faculty members, and part-time research fellowships for students. The grant will also include supplementary support in salaries and equipment for various investigative projects.

## Dr. Blair Receives Important Fellowship Grant

DR. EMIL BLAIR, a member of the Faculty and of the Division of Thoracic Surgery, has been awarded a senior fellowship grant by the National Institutes of Health. The award, one of seven made during the current year, is intended to encourage the pursuit of research as a career by investigators with a background of clinical training as well as training in the basic sciences. The grant provides five years continuing support for his experimental studies which are related to coronary disease experimentally produced in animals with secondary studies related to the experimentally produced heart failure.

## Dr. Eichler Receives Grant

DR. MYRON EICHLER, Instructor in Psychiatry, has been awarded a three-

year grant for \$60,000 from the National Institute of Mental Health to continue his training as a mental health resident investigator. His major interest is an investigative project aimed at relating brain chemistry to behavior.

DR. JOHN J. O'NEILL, Associate Professor of Pharmacology in the School of Medicine, has been awarded a three year \$40,000 research grant from the National Institute of Mental Health. Dr. O'Neill will investigate the biochemical effects of drugs on the central nervous system.

## Dr. Spicer Gets Large N.I.H. Grant

DR. WILLIAM S. SPICER, Head of the Pulmonary Disease Division of the Department of Medicine, has received an additional grant of \$184,000 from the National Heart Institute toward a continuation of a study of the relationship between air pollution and lung disease. Dr. Spicer's group is investigating the effects of air contaminants and weather variations with attack rates of patients suffering from respiratory diseases, emphysema, and asthma.



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## **TENTATIVE PROGRAM OF THE UNIVERSITY OF MARYLAND HOSPITAL MEDICAL ASSOCIATION**

**Thursday Evening, May 3, 1962**

Banquet—Medical Group, Husbands and Wives

**Morning Session, Friday, May 4,**

**Joint Meeting with the Surgical Group**

1. WISWELL, J. G., CORONHO, V., and WORKMAN, J. B.: The Problem of the Single Thyroid Nodule.  
Department of Medicine.
2. CONNOR, T. B.: Metabolic and Clinical Aspects of Renal Calculus Disease.  
Department of Medicine.

Two papers by the Department of Surgery. To be announced.

Coffee

### **Medical Program**

Medical Clinics—Case presentations and discussion, Staff of University Hospital.

12:30 P.M.—Lunch—Baltimore Union—Luncheon Speaker

### **Afternoon Session—2:00 P.M.**

1. GREISMAN, S. E.: Physiologic Basis for the Use of Vasopressor Agents During Shock.
2. SCHERLIS, L. and SINGLETON, R.: Current Concepts of Diagnosis and Management of Patients with Valvular Heart Disease.
3. REVELL, S. T. R., JR. and BORGES, F. J.: An Evaluation of Hypertension of Renal Origin.
4. SCHUBART, A.: Complement Activity in the Connective Tissue Disorders.
5. WOODWARD, T. E. and GALLAGHER, L.: Bacterial Endocarditis: Diagnosis and Management.
6. Panel Discussion, Bronchitis and Emphysema.  
DRS. WILLIAM S. SPICER, KEITH MORGAN, MAUREEN HENDERSON, and DONALD WOLFEL.

Banquet—Combined Surgical and Medical Groups, Husband and Wives.

MEDICAL SCHOOL SECTION

**Morning Session, Saturday, May 5, 1962**

Clinical Pathological Conference. A tape recording of a discussion by

Dr. Maurice C. Pincoffs given in 1960

Pathologic discussion by Dr. Harlan I. Firminger.

1. HORNICK, R. B.: Clinical Features of Experimentally Induced Human Typhoid Fever.
2. GREISMAN, S. E.: The Role of Endotoxin in the Pathogenesis of Typhoid Fever.
3. MCCRUMB, F. R., JR.: Prophylaxis of Measles and Poliomyelitis with Viable Vaccine.
4. CONNOR, T. B.: Malignant Tumors Mimicking Primary Hyperparathyroidism.
5. ROBINSON, H. M., JR.: Dermatologic Manifestations of the Common Granulomatous Diseases.
6. VAN BUSKIRK, C.: Tremors: Diagnostic Significance.
7. SACKS, M. S. and SPURLING, C.: Evaluation and Current Concepts of Pathogenesis of Malignant Disease.

Luncheon, Baltimore Union, Husbands and Wives

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**UNIVERSITY OF MARYLAND BIOLOGICAL SOCIETY**

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**Proceedings**

Special Program Meeting: Friday, September 29, 1961.

The list of new officers, elected at this meeting, appears above.

The guest speaker on this occasion was Dr. Gabriel Hamoir of the Institute Van Beneden, University of Liege, Belgium. Dr. Hamoir presented a paper entitled: "Studies on the Proteins of Skeletal Muscle."

# Department of Microbiology

## *A Short Historical Note*

FRANK W. HACHTEL, M.D.\*

THE COURSE in microbiology now presented to students of the second year class at the University of Maryland School of Medicine has gradually evolved from the teaching of bacteriology in three schools—University of Maryland, College of Physicians and Surgeons, and the Baltimore Medical College—which by consolidation have formed the present medical school of the University.

At all of these institutions some instruction in bacteriology was offered upper classmen before an organized course with work in the laboratory was given. Such a course was first taught at the University of Maryland in 1893-1894, at the College of Physicians and Surgeons in 1895-1896, and at the Baltimore Medical College in 1894-1895.

At first there was tentativeness both as to the position of bacteriology in the curriculum and as to the amount of time devoted to the subject. Thus in all three schools it was first taught to upper classmen, but after the lapse of several years—varying in the different schools—bacteriology finally found its place in the curriculum of the second year. At the Baltimore Medical College, however, after 1901 it was taught to the students in their first year.

Also in each of these schools the course was, in the beginning, given for six hours a week over a period of about two months. After a time that varied among the schools; they devoted from 125-140

hours in the laboratory and 30 hours in the lecture hall to bacteriology.

In all three medical schools at first members of the Department of Pathology taught bacteriology: At the University of Maryland Dr. Caspar O. Miller, at the College of Physicians and Surgeons Dr. N. G. Kierle assisted by Dr. John Ruhrah, and at the Baltimore Medical College Dr. William T. Howard. At the University of Maryland Dr. Miller was succeeded in 1898, by Dr. William Royal Stokes who, in turn, was followed in 1901 by Dr. José Hirsch as Professor of Pathology and Bacteriology. Dr. Hirsch continued in this position until the College of Physicians and Surgeons merged with the University. Dr. Kierle retired as Professor of Pathology at the College of Physicians and Surgeons in 1901 and was succeeded by Dr. William R. Stokes as Professor of Pathology and Bacteriology. At the Baltimore Medical College Dr. Howard was followed in rapid succession by Dr. Delano Ames, Dr. William R. Stokes, Dr. Charles Potter, Dr. T. R. Wilson, and in 1904 by Dr. Tilghman B. Marden. Dr. Marden held the chair of Biology, Histology, and Bacteriology from 1904 to 1910. In 1910 Dr. Sydney M. Cone taught pathology and bacteriology, in 1911 Dr. Frederic V. Beitler, and in 1912 Dr. Hugh R. Spencer. In 1913 the school merged with the University of Maryland.

It should be remarked that Dr. Marden was the first member of the faculty to

\* Professor of Bacteriology, Emeritus.



devote all his time to teaching and that Dr. Spencer was the second.

With the consolidation of the College of Physicians and Surgeons with the University of Maryland in 1915, Dr. William R. Stokes became Professor of Pathology and Bacteriology with Dr. Hugh R. Spencer and Dr. William Greenfeld as full-time Associate Professors of these subjects. In 1919, however, these departments were separated and Dr. Stokes became the head of the Department of Bacteriology, which position he held until his death in 1930. In 1920 Dr. Frank Wilson Hachtel became associated with the department as whole-time Associate Professor of Bacteriology. In 1930, Dr. Hachtel, who had been advanced to full-time Professor of Bacteriology in 1925, became head of the Department. This position he held until retirement at the end of the academic year 1953-1954. He was then succeeded by Dr. Charles L. Wisseman, Jr., as Professor of Microbiology and head of the Department.

From the first introduction of bacteriology into the curriculum, instruction was given for many years, with the exceptions noted above, by part-time teachers. After the dissociation of bacteriology from the Department of Pathology there was but one full-time teacher in the Department of Bacteriology until the session of 1937-1938 when Dr. James S. McAlpine was appointed full-time Associate Professor of Bacteriology. After a decade of service Dr. McAlpine resigned and was replaced on July 1, 1949, by Dr. Edward Steers. The following February Dr. Andrew G. Smith became a member of the staff as full-time Assistant Professor. With these acquisitions of whole-time teachers went a gradual reduction in the number of part-time instructors from four to two.

After the final merger in 1915—that of the College of Physicians and Surgeons with the University of Maryland—bacteriology was taught in the laboratories of the former institution until the academic year 1926-1927. In the summer of 1927 the department was moved to the sixth floor of 32-34 South Paca Street where it shared the students' laboratory with the Department of Histology and Embryology and the Department of Clinical Pathology for three years. During the summer of 1930 the Department again moved to the second floor, 31 South Greene Street. This building, formerly occupied by the School of Dentistry, had been remodelled to accommodate a number of the basic science departments of the School of Medicine. The students' laboratory on the second floor was equipped for use by three departments: Pathology, Clinical Pathology, and Bacteriology. The remainder of this floor was used by Clinical Pathology and Bacteriology for offices and research laboratories and preparation rooms. Since the Department of Clinical Pathology moved in 1940 into the Frank C. Bressler Research Laboratory Building, the floor has been remodelled several times to accommodate the increasing staff with offices and laboratories, a room for photographic work, and another to house experimental animals. During all this time the space and equipment, although adequate for teaching students, were never sufficient for carrying on the other activities of the department.

From the inception of instruction in bacteriology, the medical students have studied pathogenic along with certain non-pathogenic bacteria and also immunity. Even in the beginning some stress was laid on diagnostic bacteriology but with the passing of years more and more emphasis was placed on this, on sanitary

bacteriology, and immunology. This latter subject in 1920 was instituted as a separate course and given in the second year; at first 96 hours in the laboratory and 16 lecture hours were devoted to it. Later there was a reduction to 72 hours in the laboratory.

At first after the separation of instruction in immunology from that in bacteriology the latter was presented for four (?) years to the first year class. The time given to bacteriology then was at first 128 (?) hours in the laboratory and 16 (?) lecture hours. After a few years, this was cut back to a total of 120 hours of which 16 were allotted to lectures. After 1950 bacteriology was presented in 136 hours, as a result of increased lecture time. In 1955 the courses were again combined and taught in one semester with but little less the time of instruction.

Shortly after Dr. McAlpine became a member of the staff, attention was given to viral and rickettsial diseases and this has gradually been increased up until today (1956) virology has acquired a quite important place in the course in microbiology.

In 1946 mycology became an integral part of the course, and its importance

has been gradually and increasingly stressed. The department, in addition to the course for medical students, offers instruction to advanced students.

Interest in research began early with the association of Dr. William R. Stokes with the Department of Pathology and Bacteriology. He and his associates, individually and together, carried on investigations in the fields of medical and sanitary bacteriology, mycology, and immunology. Research has also been pursued on bacterial cataphoresis and on the effect of coliform micro-organisms on various sugar alcohols; the latter investigations were done in association with various members of the Department of Pharmacology. Other research, conducted or being conducted, is in the fields of bacterial morphology and bacterial physiology, of the action of antibiotics, and in virology.

Soon after the institution of the Baltimore branch of the Graduate School of the University of Maryland, the Department set up courses for training students for higher degrees and programs of research for men and women seeking their Master's and Doctor's degrees in Bacteriology.

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## OBSTETRICAL CASE REPORT

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Prepared by HANS D. TAUBERT, M.D.

THE PATIENT was a 35-year-old multipara who had her last menstrual period on April 1, 1960. The expected date of confinement was January 8, 1961. Her blood type was O, Rh positive. The blood serologic test for syphilis was negative. During this pregnancy she did not seek the advice of a physician; neither did she attend a prenatal clinic. Her past history was not remarkable. All of her five previous pregnancies terminated in spontaneous vaginal deliveries. The last two children were born at home under attendance of a midwife. She claimed that she had been in perfect health all her life and had not consulted a physician in years. The family history was of interest since one of her aunts and the maternal grandmother died of genital cancer.

She was admitted to the Delivery Suite on November 15, 1961. Her complaint was vaginal bleeding for six hours without labor pains. Within this period of time she had more or less soaked four vulvar pads. There was no history of trauma. She had not taken a douche and had not had intercourse recently. For several months she had noticed occasional small amounts of blood or bloody tinged mucous on her underwear, and fairly heavy discharge with an offensive odor, but had not paid much attention to it.

She was a fairly well developed, thin, white female patient. The color of the skin and mucous membranes were pale.

The findings on examination of heart and lungs were unremarkable. The fundus uteri was palpated 26 cms. above the symphysis pubis. The fetal heart was auscultated in the left lower quadrant of the abdomen at the rate of 138 per minute. The fetus was estimated to weigh about two kilograms. The vertex presented and was floating over the superior strait of the pelvis. Blood studies revealed a mild degree normocytic, hypochromic anemia probably due to iron deficiency.

The admitting physician felt that there was a possibility of placenta previa. Blood was drawn for type and cross-match, and the patient prepared for an examination under the precautions of a double set-up.

The cervix uteri could be visualized easily using a self retaining vaginal speculum. The external os was closed. The organ showed the typical changes of pregnancy such as succulence and a bluish tinge. It was long and uneffaced. A polypoid lesion with a base was found on the left aspect of the anterior lip of the cervix. It measured about one by three cms. Its surface was irregular, partially eroded, and very friable. This lesion was felt to be the source of bleeding since there was none whatsoever from the cervical os. A low lying placenta could be ruled out with a certain degree of safety by palpating the head of the fetus through the vaginal vault. A punch biopsy was taken from the periphery of the lesion. The ensuing bleeding was controlled by tight application of a gauze

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From the Department of Obstetrics & Gynecology, School of Medicine, University of Maryland.

pad. Bimanual examination did not reveal any extension of the lesion into the vaginal vault, the paracervical triangle or the parametria on either side. The histologic report read: "squamous cell carcinoma of the cervix. Stage I associated with pregnancy." The following day a classical cesarean section was performed since it was felt that a fetus with an estimated weight of two kilograms had a good chance of survival after surgical termination of pregnancy. A premature living female child of two kilograms was delivered. Postoperatively, the patient did well. On the sixth postoperative day radium was applied. It consisted of several radium sources encased into an intrauterine tandem plus two large ovoids on Fletcher applicators. The radium remained in situ for 72 hours. Following discharge from the hospital the patient received 4000 roentgen total pelvic irradiation with the Cobalt-60 unit on an out-patient basis. The tumor regressed well under therapy and as of this date the patient is doing well.

Pregnancy complicated by cervical carcinoma is rare, but of catastrophic consequences if it remains unrecognized until the fetus is delivered through such an affected cervix. About 13 out of 100 women with cervical carcinoma will be pregnant or will be in the puerperium at the time the diagnosis is made. About one out of 3000 deliveries will coincide with a cervical malignancy. Opinion is divided whether the pregnant state enhances or retards tumor growth, but the fate of the fetus is poor even in untreated cases. For all stages of the International Classification and trimester of pregnancy the perinatal mortality is around 80%. Premature delivery, abortion, intrauterine death, and ascending infection are the common causes. Histologically the

squamous cell carcinoma predominate with 95%, the rest is comprised of adenocarcinoma. The prognosis is poorer if the diagnosis is made in the last trimester of pregnancy or in the puerperium. This can be explained by the fact that the more advanced cases are found in these instances.

Early detection is of paramount importance. When the diagnosis is made early and optimal care provided, the five-year survival rates should not differ substantially from those of cervical carcinoma in non-pregnant women.

The importance of doing routine vaginal examination at the time of the initial prenatal check-up cannot be emphasized enough. This always should include taking a Papanicolaou smear. If the smear is reported as being inconclusive one should not be deterred by the pregnant state from following up with further diagnostic measures. The risk involved in taking cervical biopsies or even conization during pregnancy is by far outweighed by the consequences of overlooking a cervical malignancy.

Proper therapy depends upon the stage of pregnancy. Up to the 28th week it will be initiated by insertion of radium to the vaginal vault to "sterilize" the actual lesion. This is to be followed by total pelvic irradiation with supervoltage or Cobalt-60. If the fetus is not aborted, a hysterectomy should be done. The therapy will be concluded by intracavitary radium and parametrical irradiation according to the particular circumstances. At a later stage of pregnancy a cesarean section should be performed if there is reasonable hope for fetal salvage. Otherwise total pelvic irradiation will be initiated and radium applied after emptying the uterus. Parametrial irradiation again

Con't on p. xv

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## OBSTETRICAL CASE REPORT

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Prepared by **BOBBY A. RIMER, M.D.**

THE patient was a 30-year-old gravida 2, para 2, admitted to the hospital on March 2, 1961, in active labor at term and with membranes intact.

The estimated date of confinement was March 8, 1961. The past and family histories were not significant. Initial examination in the Prenatal Clinic revealed a normal pulse rate, blood pressure, and a weight of 122 lbs. Pelvic examination established that the uterus was enlarged symmetrically to a size consistent with the menstrual history. Pelvic capacity was felt to be adequate. The prenatal course was entirely benign, she gained a total of 22 lbs. by the time of admission. The hemoglobin was 11.5 Gm., blood type A, Rh positive. Serologic test for syphilis was nonreactive. All urinalyses during the prenatal course were negative for sugar and albumin.

On admission to the hospital she was in labor. General physical findings were unchanged. The estimated fetal weight was 3400 Gm. The presentation was a vertex, ROA, with the presenting part 1 cm. above the ischial spines. The fetal heart tones were of good quality and rate.

Labor progressed normally and uneventfully resulting in delivery by low forceps of a full term living female child weighing 3680 Gm. A central episiotomy was performed and a pudendal block was given for anesthesia. The infant breathed and cried spontaneously and was in good condition. The placenta and membranes were expressed without difficulty. Cer-

vical inspection was negative. After repair of the episiotomy, the patient was returned to her bed. Fifteen minutes following delivery, the patient was observed to be bleeding excessively, presumably because of uterine atony. Although an oxytocic was given and the uterus became firm, there was no diminution in the rate of vaginal bleeding. Blood was requested for transfusion and the patient was returned to the delivery table for manual exploration of the uterus. General anesthesia was given for the procedure. On exploration, the cervix and uterus were found to be intact, but careful exploration of the vagina revealed a small, 2 cm. laceration of the lateral vaginal wall in which a tiny vessel was actively bleeding. Two "figure of eight" sutures were sufficient to completely control the hemorrhage. Her condition remained satisfactory and the estimated blood loss was replaced with a transfusion of 500 cc. of whole blood.

### Comment

This case illustrates several important aspects in the management of postpartum hemorrhage. Whenever active bleeding continues in spite of satisfactory contraction of the uterus, the likelihood is great that genital tract laceration is present. This situation demands careful re-examination to rule out or localize the laceration. Small vaginal lacerations often escape notice on routine examination of the cervix or exploration of the uterus, and must therefore be deliberately sought for.

Con't on p. xv

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From The Department of Obstetrics & Gynecology, School of Medicine, University of Maryland, Baltimore.

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## BOOK REVIEWS

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**The Nature of Sleep.** Ciba Foundation Symposium, ed. Wolstenholme, G. E. W. & O'Connor, M. Pp. 416. Little, Brown & Co. Boston, Mass., 1960.

The Ciba Foundation Symposia have come to be a valuable vehicle for the international exchange of knowledge on the medical problems of man. In this discussion the Symposium has again made a contribution by collecting some of the world's foremost investigators and sharing with the reader their thoughts on "The Nature of Sleep."

Utilizing the cat as their main experimental animal, and depending principally on the electroencephalogram for objective evaluation, the path of investigation implicates the mesencephalic reticular formation; especially as it relates to the hypothalamus, as the single most important pathway in controlling sleep. Whether this operates through "passive reticular deactivation" (a lessening in the stream of stimuli to the brain) or whether there is an "active reticular deactivation" (active suppressor forces within the brain) is still not known. Nor has any light been thrown on the relationship between the reticular system and sleep-inducing factors such as the hypnotic effect of repeated rhythmicity other than to note that some people are more prone to "alpha blocking" as seen on EEG than others. But attention to the reticular formation has so far produced the most concrete results regarding sleep.

One of the most interesting discussions concerns itself with hibernation and sleep: a season rhythm as opposed to a diurnal rhythm. In sleep the posterior hypothalamus is well known for its role as the wakefulness center and the anterior hypothalamus as the sleep center. In studying hibernation the hypothalamus is again implicated. This time again the anterior portion acts as the hibernation or sleep-inducing section by decreasing the rate of heat production and increasing the rate of heat loss thus "turning down the thermostat." At the same time the posterior portion, pro-

tecting against cold, causes waking from hibernation.

Another stimulating discussion concerned itself with cortical activity which goes on during sleep. By ingenious tests it was shown how the sleeping brain could carry out complex discriminating acts. From this flowed naturally a discussion on the nature of dreaming, and by correlating dreams with eye movements, it was shown that recall of dreams can be readily engendered and that such cortical activity seems to be present in most humans. Moreover, if by waking the sleeper periodically, dreaming is prevented, he suffers from "dream deprivation" and increasingly searches for opportunities to catch up on his dream loss. In the light of this cortical activity, it comes rather as a surprise to learn that while sleep in man is associated with a slight increase in cerebral blood flow, there is no change, or even a slight fall, in oxygen consumption and, on the whole, little change in brain metabolism.

Despite the wealth of material which is propounded, Adrian rightly points out that no one knows why we go to sleep or what makes us sleepy. One wonders also about the validity of interpreting sleep information gleaned from the cat in terms of man, when admittedly the EEG patterns are known to record differences between them in normal tracings, and nothing is known of animal dream states. The paucity of biochemical material is likewise striking, a point recognized by the discussants, and one wonders whether our concepts of sleep may not, when subjected to the light of chemical analysis, change to the same extent that some of our concepts of schizophrenia have changed.

Finally, while the effect of sleep deprivation on efficiency was dealt with, it is notable how few practical suggestions were offered to help the clinician wrestle with the problems of sleep. However, in this work a long step has been made toward this goal from which further advances may surely be expected.

HERBERT RIBNER, M.D.

# It Happened Twenty-Five Years Ago in the *Bulletin*

THE APRIL 1937 issue of the BULLETIN contained two scientific reports. One was on the subject of intraspinal injection of alcohol for treatment of intractable pain by Drs. James C. Owings and Otto J. Brantigan. The other paper was a scholarly report of syphilis of the heart and vessels by Dr. Maurice C. Pincoffs. This paper had been read the previous October before the Inter-State Post Graduate Medical Association of North America at St. Paul.

This edition of the BULLETIN also contained a testimonial to and a review of the contributions of Dr. Randolph Winslow, who had died February 27, 1937 at the age of 84. Dr. Winslow had graduated from the University of Maryland School of Medicine in 1873 and was a member of the Faculty for the next 47 years. In 1902 he became the head of the Department of Surgery, a position he held until his retirement in 1920. Dr. Winslow held many distinguished posts in local and national medical organizations, and was one of the founders of the American College of

Surgeons. Professor Winslow was the first surgeon in Maryland to resect the pylorus for carcinoma (1884), and he also performed the first vaginal hysterectomy in the state in 1888. Dr. Winslow had a distinguished career with the Medical School. His last publication, a brief sketch of the Medical School of the University of Maryland from 1807 to 1920, appeared in the October 1936 issue of the BULLETIN. This report is a significant contribution to our knowledge of the history of our Medical School.

In the "Alumni Association" section of that issue of the BULLETIN, considerable space was devoted to the celebration of the 130th anniversary of the Medical School. A banquet had been held on February 11, 1937 and 1200 guests were present. Senator Millard E. Tydings was the toastmaster at the banquet and Governor Harry W. Nice was an honored guest. Specific comment was made about the delicious food at the banquet; indeed the complete menu of that meal was published in the BULLETIN.

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## Con't from p. xii Obstetrical Case Study

will conclude the course. Vaginal bleeding in absence of labor during pregnancy or in the puerperium should always arouse the suspicion of malignancy if other causes such as placenta previa or separation of the placenta can be ruled out. No patient with the history of vaginal bleeding during pregnancy should be released from her physician's care without careful investigation by specu-

lum examination and appropriate diagnostic tests.

## Con't from p. xiii Obstetrical Case Study

When a vessel is involved, tiny vaginal lacerations are capable of significant hemorrhage which will not be controlled by postpartum hysterectomy on the assumption that the bleeding is uterine in origin.

**UNIVERSITY OF MARYLAND MEDICAL ALUMNI REUNION**

***AMA Meeting, Chicago, Illinois***

**June 24 to 28, 1962**

COCKTAIL PARTY

Tuesday, 5 to 6 P.M.

at the

Sheraton-Blackstone Hotel

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Program of Spring Activities*

**Have you paid your dues?**

**Your Medical Alumni Association exists solely upon  
dues payments from its members.**

**It needs your support!**

**Any suggestions for the improvement of your  
Association are always welcome.**





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## ALUMNI ASSOCIATION SECTION



### President's Letter

*Dear Fellow Alumni:*

Your BULLETIN of January 1962 contained outstanding articles, one of which I would like to call to your special attention.

Dr. Walter D. Wise, who was the recipient of the Alumni Award and Gold Key for 1961, was the speaker at our annual banquet. Dr. Wise has had a long career in medicine and surgery, as well as broad experience in Clinical Surgery, having progressed through the field from Instructor to Professor of Surgery. In addition, he has maintained a keen interest in hospital activities and the medico-civic affairs of our city and state. In fact, he may well be called "Our Medical Statesman." Therefore, what Dr. Wise says is of tremendous importance to us. I strongly recommend that you read either a reprint or the original article in the January, 1962 BULLETIN entitled "Let Not the New Displace the Good of the Old."

The second article to be recommended concerns a topic important to the growth of the careers of our young physicians. A few years ago, the professions were labeled "Medicine, Law, and Theology." Most of the gifted minds sought training in these professions. However, with the advent of the "Atomic Age" a great change has taken place. The potentially gifted mind is sought out to be trained for the "World of Science." Grants from corporations and government are ready

and eager to finance the education of a possible physician, chemist, engineer, or biologist.

By the time these students begin their postgraduate training, they are receiving salaries sufficient to maintain themselves. The medical student is not so fortunate. Such grants are not available to him. He faces four years of training in school, plus an additional two to six years in hospitals, should he desire to specialize.

To thoroughly understand this story from a National as well as from the local University of Maryland viewpoint, I strongly urge you to read "Financing A Medical Education Today" by Dr. Dietrich C. Smith, Associate Dean of the School of Medicine. This article will also be found in the January, 1962 BULLETIN. Reprints may be obtained from Dr. D. C. Smith.

Your Alumni Association should continue to do its part by helping the needy and deserving student. I suggest that the Chairmen of our "Five Year Class Reunions" ask their classmates to give a donation as a remembrance of their reunion. These contributions should be turned over to your Medical Alumni Association for the Student Rotating Fund.

As you know, your Alumni Association loans the money without interest to these needy medical students. We request that the recipient repays this money after he gets "on his feet" and in practice. The money you give to this Rotating Fund, therefore, returns and will be available to help succeeding groups of students.

Sincerely,

FRANK K. MORRIS, M.D.

**DR. ARTURO R. CASILLI**  
**TO RECEIVE 1962**  
**ALUMNI HONOR AWARD**  
**AND GOLD KEY**



A PROMINENT New Jersey pathologist, Dr. Arturo R. Casilli, and member of the Class of 1914, will receive the 1962 Alumni Honor Award and Gold Key at appropriate ceremonies in Chemical Hall on the morning of June 7, 1962. Distinguished not only as a practicing pathologist and investigator, Dr. Casilli has also been active in medical affairs, particularly with regards the organization of laboratory facilities in the State of New Jersey.

A native of Italy, Dr. Casilli emigrated to the United States as a lad and at 1910 matriculated at the Baltimore Medical College which later merged with the University of Maryland. He received his Degree in Medicine in 1914 from the University of Maryland. He then interned at the Newark City Hospitals (now the Martland Medical Center) and in 1916 became Resident Pathologist at the Newark City Hospital. After a period as acting director of the department, he became assistant pathologist in 1918. In 1923, he was appointed attending pathologist at the Elizabeth General Hospital, a position he held until 1953 when he assumed the responsibility for the St.

Elizabeth Hospital and the Alexian Brothers Hospital, becoming also City Bacteriologist of the Board of Health of Elizabeth, N. J. In recent years, he has served also as senior consultant to the Elizabeth General Hospital and St. Elizabeth Hospital. He is attending pathologist at the Alexian Brothers Hospital, City pathologist for the Board of Health of Elizabeth, N. J. He is visiting pathologist for the John E. Runnells Hospital for Chest Diseases and serves also as consultant for the Fitkin Memorial Hospital, Neptune, N.J., and the Long Branch Medical Center, Long Branch, N.J.

In addition to a distinguished career as a practicing pathologist, Dr. Casilli is also instrumental in the establishment of the blood bank at the Elizabeth General Hospital and later at the St. Elizabeth Hospital. He is a founder of the Cancer Clinic at the Elizabeth General Hospital and has served as consultant to many young men who have benefited through his professional association. He is a member of the Phi Delta Epsilon, the New Jersey Pathological Society, New York Pathological Society, James Ewing

Society, the Union County Medical Society, the New Jersey Medical Society, the American Medical Association, and is a founding fellow of the American Society of Pathologists. In 1931, fellowship was conferred by the American College of Physicians.

Dr. Casilli's scientific publications include the following titles:

CASILLI, A. R.: Cancer Control: Organized Plan for Coordinated Action in General Hospital, *J. M. Soc. New Jersey*, 34:660, 1937.

CASILLI, A. R.: Luetic Glossitis. *Urol. & Cutan Rev.*, 44:744, 1940.

CASILLI, A. R.: New Microreaction for Serodiagnosis of Syphilis: Adaptation of Kahn Standard Antigen, *J. Lab. & Clin. Med.*, 21:1204, 1936.

CASILLI, A. R.: New Technic for the Flocculation Test of Syphilis, *J.A.M.A.*, 80:1068, 1923.

CASILLI, A. R.: The Pathology of Epidemic Influenza, *J. M. Soc. New Jersey*, 15:373, 1918.

CASILLI, A. R.: Primary Adenocarcinoma of Kidney—Clinical and Pathological Study. *Urol. & Cutan. Rev.*, 48:549, 1944.

CASILLI, A. R.: Principles of Blood and Urine Chemistry, *J. M. Soc. New Jersey*, 16:391, 1919.

CASILLI, A. R., RUMSEY, W. L. and SATILSKY, E. M.: Acute Neonatal Myeloblastic Leukemia, *Am. J. Dis. Child.*, 83:788, 1952.

CASILLI, A. R. and WHITE, H. J.: Rare forms of Primary Malignant Lung Tumors; Report of 3 types, *Am. J. Clin. Path.*, 10:623, 1940.

GOLDSTEIN, H. H. and CASILLI, A. R.: Rhabdomyo-sarcoma of Cremasteric Muscle and Concomitant Polyorchidism, *J. Urol.*, 41:583, 1939.

SEGARD, C. P., CASILLI, A. R., ALTSCHUL, F. and DE PONS, S.: Synopsis on Schistosomiasis, *J. M. Soc. New Jersey*, 42:362, 1945.

VINCIGUERRA, M. and CASILLI, A. R.: Hemochromatosis (Bronzed Diabetes); Report of a Case, *J. M. Soc. New Jersey*, 26:817, 1929.

## Alumni Active in Maryland Academy of General Practice

### Recent Graduates Among Newly Elected Officers for 1962

DR. WILLIAM T. LAYMAN of the Class of 1939 has been elected President of the Maryland Academy of General Practice for the year 1962. Vice Presidents include: Drs. Melvin N. Borden of the Class of 1938 and Howard N. Weeks of the Class of 1952. Dr. Harry L. Knipp of the Class of 1951 serves as Treasurer of the Academy.

Dr. Charles F. O'Donnell has also been active in the Maryland Academy and has been elected President of the Medical and Chirurgical Faculty of Maryland for the year 1962.

OFFICIAL HONORS will be conferred on the 50th year graduates and the grad-

uating class of 1962. The Alumni Office will arrange hotel accommodations for returning Alumni. Attached to the official program will be a coupon which you are urged to return promptly to the Alumni Office so that your hotel reservation may be promptly made and confirmed to you. Do some thoughtful planning, arrange to come and to be a part of the great day.

## Opportunity

THE Tennessee Valley Authority needs additional industrial physicians on its medical staff. Approximate salaries are \$12,000 per annum in the Tennessee Valley Authority area. Inquiries should be directed to: Mr. John E. Massey, Chief, Employment Branch, Division of Personnel, T.V.A., Knoxville, Tenn.

## ALUMNI DAY --- June 7, 1962

DR. FRANK K. MORRIS, President of the Medical Alumni Association, has announced preliminary plans for the June 1962 alumni celebration. Dr. C. Parke Scarborough has been appointed Chairman of Alumni Day activities. His committee, composed of Drs. D. Frank Kaltreider and Ephraim T. Lisansky, have arranged a most interesting program as follows:

### A. The Changing Philosophy of Medical Education at the University of Maryland

This will be presented by Dr. William S. Stone, Dean of the School of Medicine.

There will also be a discussion of

### B. Proposed Physical Alterations of the Professional School's Campus

Dr. Austin H. Wood is Chairman of the Honor Award Committee, assisted by Drs. J. Morris Reese and S. Edwin Muller.

Dr. Ernest I. Cornbrooks is Chairman of the Nominating Committee.

Dr. Isadore Kaplan will head the Reception Committee, and Dr. Gibson J. Wells will chair the Student Loan Committee.

Class Captains for individual class reunions have been appointed. These include the following:

50th Reunion, Class of 1912, Dr. Albert E. Goldstein.

45th Reunion, Class of 1917, Dr. Louis A. Krause.

40th Reunion, Class of 1922, Dr. John O'Connor.

35th Reunion, Class of 1927, Dr. T. Nelson Carey.

30th Reunion, Class of 1932, Dr. John E. Savage.

25th Reunion, Class of 1937, Dr. J. B. E. King Seegar.

20th Reunion, Class of 1942, Dr. John R. Davis, Jr.

15th Reunion, Class of 1947, Dr. Arlie R. Mansberger.

10th Reunion, Class of 1952, Dr. John O. Sharrett.

5th Reunion, Class of 1957, Dr. John V. Conway.

### Schedule of Activities, Alumni Day, 1962

Plans for a gala evening at the Annual Alumni Banquet at the Lord Baltimore Hotel are rapidly developing. There will be delightful surprises.

MARK YOUR CALENDAR NOW. All Alumni are urged to be present.

1962		JUNE					1962
SUN	MON	TUE	WED	THUR	FRI	SAT	
					1	2	
3	4	5	6	⑦	8	9	
10	11	12	13	14	15	16	
17	18	19	20	21	22	23	
24	25	26	27	28	29	30	

REGISTRATION will begin in Davidge Hall at 9:00 A.M. This will be followed by the scientific session and annual busi-

ness meeting of the Alumni Association. This year the presentation of the Honor Award and Alumni Gold Key will go to Dr. Arturo R. Casilli, who will receive his honor from the President of the Medical Alumni Association, Dr. Frank K. Morris. Following the Honor Award ceremonies, luncheon will be served in the Student Union Building. The luncheon is free to all who register, but all must have an admission ticket.

In the afternoon there will be class reunions (some have been scheduled for the preceding day). Evening festivities will begin at 7:00 P.M. with the annual Alumni Banquet.

Come! You will be rewarded by seeing the great strides made by your Alma Mater and by feeling the warm hand clasps of your classmates and by creating new friendships.

### **Alumnus Wins *Modern Medicine's* Distinguished Achievement Award**

DR. LOUIS A. BUIE, Class of 1915, of Rochester, Minn., was honored recently with a Distinguished Achievement Award for contributions which have directly influenced medical progress.

These annual awards by *Modern Medicine*, a monthly publication, are presented to prominent American physicians.

Dr. Buie was specifically cited for his work in establishing proctology as a surgical specialty and for his successful campaign for restating the principles of medical ethics. He is currently emeritus consultant to the Mayo Clinic and professor emeritus of proctology at the University of Minnesota Mayo Foundation. He is one of ten medical scientists thus honored. Dr. Buie was primarily responsible for the first complete revision of

the *Principles of Medical Ethics* of the American Medical Association. In addition to writing nearly every word of the revision, he actively campaigned for its adoption. Dr. Buie was previously honored at the School of Medicine as a distinguished physician and alumnus. He is a member of the Class of 1915.

### **Correspondence on William R. Stokes, M.D.**

DR. S. DANIEL BLUM, Class of 1932, of 56-44 Main Street, Flushing 55, N. Y., writes to Dr. Frank W. Hachtel as follows:

"... It was my good fortune during my sophomore year to be befriended by Dr. Stokes through our mutual love of literature and poetry, though the first meeting of ours was rather comical, arising out of a funny incident in his lecture class. I, too, as so many others, in the short time I was to know him, fell under the spell of his quiet and innate charm, the quiet yet intense thrust of his teaching ability, more so in his privacy, his love for life and its surroundings and his inexhaustible stories from literature. I remember also sharing some of his walks, and one time almost walked the width of Baltimore listening to his discourse on the 'Pleiades—the seven daughters of Atlas, in Greek Mythology.'

"It was therefore with great sadness for me as for many others of his friends and colleagues, that we learned of his untimely illness and death. I never was able to see him again during that time. His passing left a void in me for a long time of my student days at the Medical School. It was my intense wish to express myself in some manner of thanks to Dr. Stokes that led me in my puny attempt to answer his poem 'Remember Me' (see end of article on Dr. Stokes by

Dr. Blum). The poem, "In Remembrance," was published in the April 1930 edition of the BULLETIN, and I take the liberty of enclosing a copy since you were a personal friend of Dr. Stoke's. . . ."

The BULLETIN takes great pleasure in republishing Dr. Blum's tribute to a prominent and remembered scientist.

#### IN REMEMBRANCE

(In Memory of Dr. Wm. Royal Stokes whose poem "Remember Me" inspired this answer)

When oit as in that pensive mood,  
We come to talk of people good;  
Men who have moulded our careers  
And left their stamp thru all the years.

Those who in the dim years past,  
Have with their teaching and faith steadfast,  
Instilled into a banal life  
Some enriching thoughts, carefree from strife.

When, some day in far off clime  
Once more we gather for a time  
And think of homeward bonds and ties;  
Your memory will gleam like azure skies.

The quiet legacy you leave,  
Is far greater than words bequeath;  
And like your soft and tender rhymes  
Will linger like some haunting chimes.

The world lives on, birds welcome day,  
As you once with a merry roundelay;  
Your students to their classes hurry,  
For school continues with all its flurry.

Yet as we climb the well-worn stair  
And this time do not find you there,  
It is then we realize full well  
What mere words alone can't tell.

O! noble soul! we fain would mourn  
With the troubadours that awake the dawn;  
Their liquid melodies that rent the sky,  
Are hushed now in kingdoms high.

But we shall your remembrance keep,  
And for you smile instead of weep;  
Yet smiles are only clowns that cheat  
The saddened heart of its burden deep.

O! to wander thru the golden past,  
All shackles (you say) free at last,  
And once again to dream with you—  
The dream that ne'er will come true.

—S. DANIEL BLUM



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## REUNION CLASSES 1962

Class rosters of the reunion classes are found below. Many addresses are incomplete or inaccurate. These are denoted by an asterisk. Correct addresses are much needed and will be most welcome. You are urged to inform Mrs. Louise Girkin, Executive Secretary, of any such new or corrected addresses.

### Class of 1917

- |   |  |
|---|--|
| CHARLES H. AUDIT, SR.<br>3 Second Ave., Waterbury, Conn.                                | LOUIS A. MOYER KRAUSE<br>11 E. Chase St., Baltimore 2, Md.                                 |
| SAMUEL B. BARISHAW<br>R.D. 1, Box 1514, Los Osos Valley Rd., San<br>Luis Obispo, Calif. | LEMUEL A. LASHER<br>132 W. 26th St., Erie, Pa.   |
| D. F. BENNET<br>4 Main St., Lubec, Me.  | ALLAN WILSON MACGREGOR<br>379 Ellison St., Paterson, N. J.                                 |
| GEO. HONER BLOOM<br>236 Roseberry St., Phillipsburg, N. J.                              | ARTHUR B. MORAN<br>211 N. Main St., Manchester, Conn.                                      |
| LOUIS JOSEPH BOILL<br>320 Broadway, Paterson 1, N. J.                                   | EMMET DEWITT MOYERS<br>Widen, W. Va.   |
| OCTAVIUS B. BONNER<br>649 N. Main St., High Point, N. C.                                | FRANCIS FABIAN NOLAN<br>254 Granby St., Norfolk 10, Va.                                    |
| IPOLITAS BENEDICT BRONUSHAS<br>3037 O'Donnell St., Baltimore 24, Md.                    | FRANK N. OGDEN<br>2701 N. Calvert St., Baltimore 18, Md.                                   |
| ERNEST A. BURROWS<br>Chas. V. Chapin Hospital, Providence, R. I.                        | GEO. A. PETRULIAS<br>262 E. Market St., Bethlehem, Pa.*                                    |
| FRED H. CLARK<br>3610 Gwynn Oak Ave., Baltimore 7, Md.                                  | MARVIN H. PORTERFIELD<br>219 W. Burke St., Martinsburg, W. Va.                             |
| MILTON H. CUMIN<br>4302 Springdale Ave., Baltimore 7, Md.                               | CLARENCE MANSFIELD REDDIG<br>6111 Dorchester St., Springfield, Va.                         |
| JOHN T. DAVES<br>V.A. Hospital, Columbia, S. C.   | ELBERT COY REITZEL<br>3727 Belle Ave., Baltimore 15, Md.                                   |
| WILLIAM B. DAVIDSON<br>Rutland, Mass.   | GABRIEL E. RIGAU<br>855 Las Marias Av., Hyde Park,<br>Rio Piedras, P. R.                   |
| FRANKLIN C. ELEDER<br>2201 Echodale Ave., Baltimore 14, Md.                             | ANTONIO RODRIQUEZ, JR.<br>Veterans Benefits Office, 1825 H St., N.W.,<br>Washington, D. C. |
| LUIS JORGE FERNANDEZ<br>P. O. Box 2206, San Juan 10, P. R.                              | JOSE MARTINEZ-RODRIQUEZ<br>V.A. Hospital, Memphis 4, Tenn.                                 |
| GEORGE O. HARTMAN<br>Rt. 1, Box 275, Arcadia, Fla.                                      | JOSEPH SALAN<br>123 E. 37th St., New York 16, N. Y.  |
| FRANCIS C. HERTZOG, SR.<br>2865 Atlantic Ave., Long Beach, Calif.                       | CAPT. HERBERT L. SHINN<br>Mathews, Va.   |
| WHEELER O. HUFF<br>Rockville, Md.   | MAX SILVERSTEIN<br>65 Sydney Ave., Deal, N. J.   |
| EDGAR WAYNE KAUFMAN<br>2225 River Ave., Camden, N. J.                                   | LEO L. SMITH<br>229 S. W. 29th St., Oklahoma City 9, Okla.                                 |
| WM. VAN KIRK<br>Eagle Lake, Me.   |  |

\* Last known address.



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GLENN MCCOY  
555 Burleigh Ave., Holly Hill, Fla.  
WM. ROBERT MIDDLEMISS  
508 E. So. Temple St., Salt Lake City 2, Utah  
ARTHUR CECIL MONNINGER  
800 E. North Ave., Baltimore 2, Md.  
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Box 468, Arlington, Va.\*  
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V.A., 20 Washington Place, Newark 2, N. J.  
HENRY L. SLENNECKE  
(No address)  
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461 Bedford Ave., Brooklyn 11, N. Y.  
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151 Central Park West, New York 23, N. Y.  
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\* Last known address.

Class of 1927

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409 Noble Ave., Bridgeport, Conn.
- J. H. ARMACOST  
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Bureau Med. & Surg., Washington, D. C.
- JOHN M. BANKHEAD  
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- HYMAN BELSKY  
605 East Lincoln Ave., Mt. Vernon, N. Y.
- JULIUS W. BELL  
57 W. 57th St., New York 19, N. Y.
- JOSEPH G. BENESUNES  
110 East Lombard St., Baltimore 2, Md.
- JOHN FRANCIS CADDEN, JR.  
116 W. University Pkwy., Baltimore 10, Md.\*
- T. NELSON CAREY  
1014 St. Paul St., Baltimore 2, Md.
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RAY A. WILSON

Susquehanna Med. Clinic, East Prospect, Pa.

VIRGINIA E. YOUNG

Children's Hospital of East Bay, 51st and  
Dover St., Oakland 9, Calif.

LEONARD ZULLO

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# *Class*

## NOTES

ELSEWHERE in this edition you will find a "tear out" page, for reporting *Alumni News* to the BULLETIN. This is not an idle gesture.

Your achievements, fellow alumnus, are of interest to your classmates. They constitute a reward to the faculty, are a challenge to the younger physicians, and are an item of prestige for the University. Please cooperate with us by forwarding news of yourself or any alumnus to the BULLETIN. Thank you.

### Class of 1895

**Nicholas George Wilson** of 142 York St., Norfolk, Va., died recently.

### B. M. C. 1897

**Milton A. Noon** of Everson, Pa., died at the age of 94 on September 22, 1961.

### Class of 1897

**Charles D. Marchant** died November 9, 1961, at his home in Topping, Va. Dr. Marchant was 88.

### B. M. C. 1898

**James Patterson** of 1437 Beechwood Blvd., Pittsburgh, Pa., died recently.

### P & S 1900

**Dallas V. Smith** of Letart, W. Va., died recently.

### P & S 1901

**Jacob A. Baer** of 1520 Wood Ave., Homestead, N. J., died at his home on December 3, 1961, after a brief illness. Dr. Baer was 84.

A son of the late William and Mary Moore Baer, he was born at Humlock Creek, Pa. Following his graduation, he

practiced in Homestead for more than 50 years. For a while he practiced otolaryngology. In 1917, he served as a First Lieutenant in the Medical Corps of the United States Army. Dr. Baer was a former Wayne County Coroner and Wayne County Health Officer.

**Lonzo O. Rose** of 2823 Erie Ave., Cincinnati, Ohio, died recently.

### Class of 1902

**Clarence Eugene Collins** of Crisfield, Md., celebrated his 92nd birthday on January 16, 1962. Dr. Collins retired from private practice in 1946 and finds himself in excellent health.

**Matthew George Conlin** of Keith Hill Rest Home, Grafton, Mass., died recently.

**Philip L. Travers** of Santa Fe, N. M., died on November 5, 1961, at the age of 82.

### B. M. C. 1903

**Earle Morey Vrooman** of City Health Department, North Adams, Mass., died recently.

### Class of 1903

**Arthur R. Hunter** of Simpsonville, S. C., died recently.

**Joseph Battle Philips, Jr.**, of Middlesex, N. C., died recently.

**J. John Lee Young** of Yonkers, N. Y., died recently.

### P & S 1904

**John Joseph O'Donnell** of 3529 Sassafras Street, Erie, Pa., died on December 9, 1959.

**Sidney M. Saltz** of 1130 N. Laurel Ave., Los Angeles, Calif., died recently.

### B. M. C. 1905

**George Walter Ashton** of Harrisville, R. I., died on September 25, 1961, at the age of 88.



**B. M. C. 1906**

**Philip Sussman** of 159 2nd Ave., New York City, died recently.

**P & S 1906**

**George Lewis Pence** of Hinton, W. Va., died August 18, 1961, at the age of 80.

**Class of 1906**

**Solomon G. Moore** of Stephens City, Va., died recently.

**B. M. C. 1907**

**Merritt Brice** of Millington, Md., died August 31, 1961. Dr. Brice was 81.

**Charles Curtis Carroll** of Port Clyde, Me., died September 13, 1961, aged 85.

**P & S 1907**

**F. C. Lamar**, of 624 Professional Bldg., 11th and Grand Ave., Kansas City, Mo., died recently.

**P & S 1908**

**George A. Strauss** of 4300 Kathland Ave., Baltimore, Md., died November 27, 1961.

**Class of 1908**

**A. B. Shoemaker** of 87 Malborough St., Boston, Mass., died on October 2, 1961. Dr. Shoemaker was 77.

**Class of 1909**

**William T. Gibson** of Batesburg, S. C., died on May 26, 1961, of myocardial infarction. Dr. Gibson was 77.

**P & S 1910**

**Alexander J. Maysels** of 121 E. 4th St., Bethlehem, Pa., died recently.

**B. M. C. 1913**

**Robert E. Thomas**, Colonel, U. S. A. (Ret.), died on June 2, 1961, at Walter Reed General Hospital. Dr. Thomas was 73.

**Class of 1914**

**George B. Lynch** of Brevard, N. C., died on April 15, 1959.

**Class of 1915**

**John C. Woodland** (Col., U.S.A., Ret.) of 524 Valley Lane, Falls Church, Va., died on November 11, 1961, at the age of 71.

**Class of 1916**

**Charles R. Brooke** has been honored by the Latin American Congress of Physical Medicine with the award of a gold key at ceremonies held on April 25, 1962.

**Noah Hageman Short** of Norton, Va., died on September 18, 1961. Dr. Short was 71.

**Class of 1917**

**Roy D. Champlin** of 333 E. Washington St., Syracuse, N. Y., died September 1, 1961. Dr. Champlin was 67.

**Class of 1922**

**Harry Bailey** of New Haven, Conn., died recently.

**Abraham Salzberg** of Brooklyn, N. Y., died recently.

**Class of 1923**

**Ira Clinton Long** of Moorehead City, N. C., died May 29, 1961, of myocardial infarction. Dr. Long was 70.

**Alexander William T. Povalski** of 1925 Hudson Blvd., Jersey City, N. J., died August 27, 1961, at the age of 63.

**Class of 1924**

**Ira Flax** of 825 S. 10th St., Newark, N. J., died recently.

**Class of 1926**

**Abraham S. Rothberg**, who practices orthopedic surgery in New York City, has been recently appointed At-

tending Orthopedic Surgeon at the Hospital for Joint Diseases. Dr. Rothberg is also Chief of the Orthopedic Service at Beth Israel Hospital and is Attending Orthopedic Surgeon at the Home and Hospital of the Daughters of Israel, all in New York City. He also serves as Consultant Orthopedic Surgeon at the Jersey City Medical Center.

#### Class of 1927

**Edd Alexander Misenheimer** of E. Depot St., Concord, N. C., died May 11, 1961, at the age of 58.

#### Class of 1929

**Morris Franklin Birely** of Church St., Thurmont, Md., died November 18, 1961. Dr. Birely was 57.

*Correction*—In the January 1962 BULLETIN of the School of Medicine, it was erroneously stated that **Morris Bernard Schreiber** of 3506 Ellamont Rd., Baltimore, Md., died recently. Dr. Schreiber has verbally informed the BULLETIN that he is very much in active practice. The BULLETIN regrets the error.

#### Class of 1931

**Roy C. Ernest** of 4117 Mayfield Rd., South Euclid, Ohio, died at the age of 57 on November 16, 1961.

#### Class of 1932

**S. Daniel Blum** serves as Director of Radiology at the Booth Memorial Hospital, 56-45 Main St., Flushing 55, N. Y. The Booth Memorial Hospital is operated by the Salvation Army.

#### Class of 1934

**Reuben Leass** has announced the removal of his Manhattan office to 950 Park Ave., New York City. Dr. Leass will maintain a Long Island office at 1240 Beach 9th St., Far Rockaway, N. Y.

A Diplomate of the American Board

of Physical Medicine and Rehabilitation, Dr. Leass limits his practice to orthopedics, physical medicine, and rehabilitation.

#### Class of 1935



**John Warren Albrittain** is very much alive.

Through a series of mishaps, a completely erroneous note on John appeared in the January 1962 BULLETIN. We are anxious to retract this statement and publish herewith not only John's most recent picture, but a brief extract from a letter the BULLETIN received in reply to a profuse apology.

"... I had heard by the grapevine—that my obituary had been published—. It is a real pleasure to be in the enviable position of telling you that I am glad to be able to read and rebut it. In this regard I am in excellent health and am enjoying working and living as much as ever. . . . Errors are bound to occur from time to time. This one, which involves me, will not shake my faith, alienate my wife, family or friends, adversely affect my career in the Navy, or reduce my income."

**Jesse Frank Williams** of 229 Washington Ave., Clarksburg, W. Va., died recently.

**Class of 1936**

**Frank Glassner** of 308 Chestnut St., Roselle, N. J., died recently.

**Class of 1938**



Several years ago, your reporter visited Houston, Tex., the home of **John J. Bunting**, who practices internal medicine in that city. John, the owner of the Lazy-B Ranch near Richmond, Tex., often travels to and from his office by helicopter, a 15-minute flight.

Jack serves as lecturer in medicine at the University of Texas Graduate School of Medicine, and is a Fellow of the American College of Chest Physicians. He also serves as Associate Professor of Clinical Medicine at the Baylor University College of Medicine, and is active on the staffs of the Memorial, the Hermann, the Methodist, the St. Luke's, and the Jefferson Davis Hospital, all in Houston.

Aside from his interest in horses, Jack has found time to serve as co-editor of the *Medical Records and Annals*, a local scientific publication, and is active as a Director of the rapidly growing Central National Bank, is a founder of St. Martin's Episcopal Church, and has entertained a number of University men, prominent among whom was Ted Woodward who visited him in 1960.

**Class of 1939**

**Harold Allen Grott** of 8100 Harford Rd., in Baltimore, died recently.

**Class of 1940**

**Susana Igartua-Cardona**, of 20 Betances St., Aguadilla, Puerto Rico, died recently.

**Raymond C. V. Robinson** has been named Councillor to the Southern Medical Association. Drs. F. A. Holden and Harry M. Robinson, Sr., will serve as Associate Councillors.

**Class of 1941**

**Robert Bowie Sasscer** of Route 2, Upper Marlboro, Md., died December 21, 1960.

**Thomas C. Wilder** of 312 W. 9th Ave., Spokane, Wash., died recently.

**Class of 1942**

**William L. Byerly, Jr.** died unexpectedly on Thursday morning, January 18, 1962. He was 44. Death was attributed to a cerebral hemorrhage.

Following his graduation from the School of Medicine in 1942, he interned at the University Hospital. Later he served in the United States Army Medical Corps, rising to the rank of Captain. At the end of World War II, he returned to the University Hospital in 1948 where he became Chief Resident in Surgery. After completing this training, he joined his father, Dr. W. L. Byerly, Sr. at the Byerly Hospital in Hartsville, S. C., and was Chief Surgeon there at the time of his demise.

He was a Diplomate of the American Board of Surgery, Fellow of the American College of Surgeons, and member of its credentials committee for South Carolina. He was a member of the American Medical Association, the South Car-

olina Medical Association, the Darlington County Medical Association, the Southeastern Surgical Society, the South Carolina Surgical Society, and the Medical Surgical Society of Baltimore. Dr. Byerly was very actively engaged in both church and civic organizations. He is survived by his widow, the former Louise McDonald, one daughter, and three sons.

J. HOWARD FRANZ, M.D.

#### Class of 1943

**Raymond V. Rangle** has been named chairman of Baltimore's Equal Employment Opportunity Commission.

#### Class of 1945

**Frank J. Ayd, Jr.** has recently returned from a European lecture tour. The principal lecture given by Dr. Ayd was the Dr. Thomas Dooley Memorial Lecture at the University of Rome, with other lectures being given at the Salvatore Mundi Hospital, the North American College, and the College Bellarmino, also in Rome. Dr. Ayd also spoke in the Beda College in Rome, Collegio Di Santa Croce in Rome, and at the University of Paris.

#### Class of 1946

**Leonard Bachman** has been recently promoted to the rank of Associate Professor of Anesthesiology in the University of Pennsylvania School of Medicine. Dr. Bachman is Director of the Division of Anesthesiology at the Children's Hospital in Philadelphia.

**Pomeroy Nichols** of Augusta, Ga., has been nominated Chairman of the Staff of the University Hospital in Augusta for the year 1961-62.

**James S. O'Hare** has relocated his practice and is now associated with the Travis Clinic in Jacksonville, Tex.

A former resident at the Lutheran

Hospital of Maryland and active on the staff of the Mercy Hospital in Baltimore before moving to Texas. Dr. O'Hare is continuing his specialization of general and vascular surgery.

#### Class of 1947

**James E. Anthony, Jr.** is currently active in the practice of general surgery with offices at 558 Medlock Rd., Decatur, Ga.

**Louis W. Grossman, Jr.** of 7 S. Mill St., Newcastle, Pa., died recently.

#### Class of 1949



**John A. Spittell** is currently a member of the staff of the Mayo Clinic, Rochester, Minn., where he serves as consultant in medicine. Since his graduation in 1949, Dr. Spittell has had an interesting and active career.

He first served his internship at the Mercy Hospital in Baltimore from 1949 through 1950 and then entered the Medical Corps of the United States Air Corps, serving as Captain from November, 1950 through October, 1952. He then joined the Mayo Clinic in October of 1952, as a fellow in medicine of the Mayo Foundation. In 1955, he received the Degree of Master of Science in Medicine from the University of Minnesota

and in the same year he was appointed an assistant to the staff of the Mayo Clinic.

Dr. Spittell was appointed to the staff of the Mayo Clinic on July 1, 1956, as a consultant in medicine. In 1957, he became an instructor in medicine in the Mayo Foundation, Graduate School, University of Minnesota. He was certified as a specialist in medicine in 1958 by the American Board of Internal Medicine, Inc. Since January 1, 1962, he has been head of a section of medicine in the Mayo Clinic.

Dr. Spittell is a fellow of the American College of Physicians and a member of the American Medical Association, the American Heart Association, the Minnesota State Medical Association, the Minnesota Society of Internal Medicine, the Minnesota Heart Association, the Zumbro Valley Medical Society, the Alumni Association of the Mayo Foundation, the Society of the Sigma Xi, the Nu Sigma Nu professional medical fraternity, and the Delta Upsilon social fraternity. He is a member of the Council on Arteriosclerosis of the American Heart Association.

Dr. Spittell has maintained a particular interest in peripheral vascular diseases, with especial emphasis upon the mechanism of thrombosis and related disorders, and has contributed extensively to the literature on that subject. An exhibit on Visceral Aneurysms: Importance of Recognition and Treatment, which he prepared with Dr. John F. Fairbairn, II, and Dr. Philip J. Osmundson, of the Mayo Clinic, was awarded the certificate of merit of the American Medical Association at the annual meeting of that organization in 1960. He is a contributor to the third revised edition of *Peripheral Vascular Diseases* by the

late Dr. Edgar V. Allen, Dr. Nelson W. Barker, and Dr. Edgar A. Hines, Jr.

**Howard F. Raskin** is the co-author of an article appearing in a recent number of *CA (The American Cancer Society Clinical Bulletin)* relating to carcinoma of the pancreas, biliary tract, and liver.

Dr. Raskin is in the Department of Medicine at the University of Chicago Clinics and is the author of many important studies on the cytopathology of the gastrointestinal tract.

#### Class of 1953

**Walter Houck Byerly** has been appointed Resident in Anesthesiology at the Mayo Clinic Foundation, Rochester, Minn.

**Leonard H. Flax** is the author of a recently published paper relating to A New Surgical Drain.

In an article appearing in the July 15, 1961 issue of the *Journal of the American Medical Association*, Dr. Flax states "—A new radiopaque drain has been developed which can be seen in the event of its disappearance within a surgical wound. This drain is impregnated with barium sulphate, marked at 5.0 cm. intervals to determine residual portion of the drain remaining. Experience with 54 cases are satisfactory without undesirable side effects. Visualization is excellent at varying depths—."

#### Class of 1954

**Daniel H. Framm** of 302-A Sunrise Lane, Chattanooga, Tenn., has been recently certified by the American Board of Pediatrics.

#### Class of 1955

**William Dvorine** has announced the removal of his office to the Pikesville Medical Center, 1401 Reisterstown Rd., Pikesville, Md.

**Class of 1957**

**Marion Restivo**, who is now on active duty with the United States Public Health Service, is stationed at Fort Wainwright near Fairbanks, Alaska.

**Class of 1958**

**Harry J. Fitch** writes that he is now engaged in the practice of general surgery at 1400 Main St. in Eunice, N. M.

**Wade Ortel** is currently serving as a member of the staff of the Kotzebue U.S.P.H.S. Hospital in Alaska. This hospital, in process of construction for almost two years, was dedicated and opened in January, 1962. The complex installation provides medical services for nearly 7,000 native people living in about an area of 85,000 square miles in the northwestern region of Alaska. Dr. Ortel not only serves actively on the staff of the hospital, but each evening at 6 o'clock enters into radio communication with over 20 villages, instructing persons such as the local school teacher who transmits symptoms of various illnesses occurring in their villages. Through a medium of two-way radio communication, it is possible for Dr. Ortel to ascertain either simple treatment or to begin arrangements for the transportation of the patient to the Kotzebue Hospital. News of Dr. Ortel reached the BULLETIN through the courtesy of Mrs. Bernice Restivo (Marion Restivo, Class of 1957).

**Class of 1959**

**Stanley Z. Felsenberg**, 2900 Dunran Rd., Baltimore 22, Md., is engaged in general practice in Dundalk, Md., and associated with Dr. Bernard W. Sollod.

**Carlton I. Halle**, (home) 3410 Dolfield, Apt. 116, Baltimore 15, Md., is now Captain, M.C., USA, on active military duty stationed at Seoul Military Hospital, Seoul, Korea; mailing address: APO 301, San Francisco, Calif.

**Stanley S. Shocket**, 1515 W. Lafayette Ave., St. Louis 4, Mo., writes: "I have completed a one-year fellowship in Ophthalmology at McMillan of the Barnes Hospital Group and now am completing my residency with two years of eye training at St. Louis City Hospital."

**Class of 1960**

**William Bertuch**, U. S. Naval Support Activity, Navy 510, Box 19, Fleet Post Office, New York, N. Y., writes: "My current location is Naples, Italy, and I would like to receive the BULLETIN. All news from home is eagerly and thoroughly read."

**Class of 1961**

**Robert A. Fink** has been appointed Assistant Resident in Neurological Surgery in the Department of Neurosurgery, University of Chicago, in Chicago, Ill. Dr. Fink resides at 3941 N. Pine Grove Ave., Chicago 13, Ill.

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## ALUMNI NEWS REPORT

TO THE BULLETIN:

I would like to report the following:

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### SUGGESTIONS FOR NEWS ITEMS

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Residency Appointment  
Research Completed  
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Academic Appointment  
Interesting Historic Photographs

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## Dean's LETTER

### MEDICAL SCHOOL SECTION

*Dear Members of the Alumni and Friends of  
the Medical School:*

Today formal medical education involves not only the four years of the program leading to the M.D. Degree but the internship and the residency education period in the medical specialties.

This lengthy period of education is required because of the complexity of the subjects that must be covered and the need to develop maturity and judgment in their application to the patient.

In the intern and residency period, the exchange of students that takes place between medical schools adds greatly to the educational opportunities because it brings together ideas, concepts, and methods developed by the faculty of the individual medical schools.

Considering these facts, it is pleasing to see that there is now organized in most of the clinical departments of the medical school societies made up of the faculty and graduates of the residency education programs in the medical specialties.

The Louis H. Douglass Obstetrical & Gynecologic Society, the Surgical Society, and the University of Maryland Hospital Medical Association should do much to add to the breadth, depth, and prestige of the medical school's education program.

Sincerely,

WILLIAM S. STONE, M.D.

*Dean*

## Dr. Bartemeier Named to Medical School Staff



DR. LEO H. BARTEMEIER, Medical Director of the Seton Psychiatric Institute in Baltimore, has been appointed Clinical Professor of Psychiatry in the School of Medicine. Dr. Bartemeier will participate in the graduate training program and will particularly concern himself with the supervision of individual psychotherapy by the resident psychiatric staff. Dr. Bartemeier, who is also Clinical Professor of Psychiatry at Georgetown University School of Medicine, has held numerous other positions such as Consultant to the Esther Loring Richards Children's Center, Consulting Psychiatrist at St. Vincent's Hospital of the City of New York, and as Training Analyst at the Chicago Institute for Psychoanalysis. He has also been active in the Detroit Psychoanalytic Institute, the Washington Psychoanalytic Association, and the Baltimore Psychoanalytic Institute. At the time he practiced in Detroit, he served as Associate Professor of Psychiatry at the Wayne University School of Medicine.

Dr. Bartemeier earned a bachelor's and master's degree at the Catholic University of America and is an alumnus of the Georgetown University School of Medicine. He served a medical internship and residency at the Henry Ford Hospital in Detroit, receiving his training in psychiatry at the Henry Phipps Clinic of the Johns Hopkins Hospital under the direction of the late Dr. Adolph Meyer. Dr. Bartemeier is a member of many professional organizations, is a past president of the American Psychoanalytic Association, the International Psychoanalytic Association, and the American Psychiatric Association. He is the author of numerous scientific papers and has been a member of several national study groups. He is an honorary member of Alpha Omega Alpha, honorary medical fraternity.

## Senior Students Win National Honor

OUR SENIOR students, Drs. Ian R. Anderson and Louis C. Breschi, received the First Award at the Student American Medical Association Convention held in Washington, D. C., during May, 1962. The exhibit shown was in competition with 16 others and not only included a certificate but a cash prize of \$500.00. Drs. Anderson and Breschi have been invited to display their exhibit at the annual meeting of the American Medical Association in Chicago.

During the junior and senior years, these students worked in the Division of Urology of the Department of Surgery, studying radiohippuran renograms in normal and pathologic states, presenting some of their results on the intravenous injection of orthoiodohippuric acid as a means of demonstrating the renal vascular supply, function, and urinary drain-

age. Much of this work was under the direction of Dr. John Young, Professor of Urology.

### **Kaltreider New B.C.H. Chief**



DR. D. FRANK KALTREIDER, Professor of Obstetrics at the School of Medicine, has been named Chief of the Department of Obstetrics and Gynecology at the Baltimore City Hospitals, a department fully affiliated with the School of Medicine.

A former Chief Resident at the Baltimore City Hospitals, Dr. Kaltreider has been active both in private practice and as Chief of Obstetrics at the University of Maryland. He is a member of numerous national, regional, and local medical societies and has been active in obstetrical research, investigations covering the problems of dystocia, thyroid function in pregnancy, obstetrical statistics, and the effect of analgesia on premature salvage.

### **Dr. Huntington Williams Retires as Baltimore City Commissioner of Health**

DR. HUNTINGTON WILLIAMS, Commissioner of Health of Baltimore City and active on the Staff of the School of Medicine, has recently retired. Dr. Williams has for many years served as Professor of Hygiene and Public Health.

# *Faculty*

## **NOTES**

### **Department of Anatomy**

DR. JOHANNES MOLL of the Department of Anatomy of the State University, Gronigen, The Netherlands, was recently a guest in the Department of Anatomy, where he conducted a seminar on "Hypothalamus and Neurosecretory Processes."

DR. VERNON E. KRAHL, Professor of Anatomy, has been named the recipient of a newly established Research Career Award Program of the Public Health Service of the United States Department of Health, Education, and Welfare. Dr. Krahl will continue his active teaching at the School of Medicine, but under the provisions of the research award will be able to devote considerably more time to the pursuit of his research in pulmonary anatomy and physiology for which he is pre-eminently and internationally known.

During the summer of 1962, Dr. Krahl is working in Colorado on several of his pulmonary projects.

### **Department of Ophthalmology**

DR. RICHARD D. RICHARDS, Professor and Head of the Department of Ophthalmology, recently addressed the Spring Scientific Assembly of the District of Columbia and Maryland Chapters of the American Academy of General Practice, the meeting being held on May 5 and 6 in Washington, D. C. Dr. Richards spoke on "Relation of Diabetes Retinopathy to Lipid Levels."

DR. EPHRAIM T. LISANSKY, Associate Professor of Medicine, also participated in the discussions, delivering a paper entitled "History Taking with the Goal of Making a Physiological and Psychiatric Diagnosis."

### Department of Pharmacology

DR. JOHN C. KRANTZ, JR., Chairman of the Department of Pharmacology, was named the First Paul K. Smith Memorial Lecturer at the George Washington University School of Medicine in Washington, D. C. Dr. Krantz spoke on the subject "A Round Trip Journey from Anesthesiology to Psychiatry Via the Fluorinated Ethers." The lectureship was established in honor of Dr. Paul K. Smith, head of the Department of Pharmacology at the George Washington University, who was well-known for his work on anti-motion sickness drugs.

DR. RAYMOND M. BURGISON, Associate Professor of Pharmacology, has been named special consultant in chemical pharmacology at the National Institute of Mental Health. Dr. Burgison will also serve as a member of the Institute's Pre-Clinical Psychopharmacology Advisory Committee. Dr. Burgison also serves as one of the United States editors of *Chemotherapy Research Bulletin*, an international journal.

### Dept. of Physiology

THE Department of Physiology of the School of Medicine announces the appointment of four new members to the faculty effective September 1, 1962.

William J. Adelman will be appointed as Associate Professor of Physiology, coming to the School of Medicine from the Laboratory of Biophysics of the National Institute of Neurologic Diseases and Blindness in Washington. Charles A. Barraclough, who is presently Assistant Professor of Anatomy at the University of California and is currently on

leave as research fellow, Cambridge University, England, will be appointed as Associate Professor of Physiology. Paul D. Coleman, special fellow of the National Institute of Neurologic Diseases and Blindness, has been appointed Associate Professor of Physiology. Edmund M. Glaser, National Institute of Health fellow in Physiology, has been appointed Research Associate Professor. Dr. Glaser comes to the University of Maryland from the Johns Hopkins University.

### Department of Psychiatry Receives Grants

THE Department of Psychiatry of the School of Medicine has announced the receipt of two five-year grants from the National Institutes of Mental Health. These grants, totaling \$862,840, will be used for the support of graduate training in psychiatry.

According to Dr. Eugene B. Brody, Professor of Psychiatry and Director of the Psychiatric Institute, the first grant provides \$533,440 toward broadening the Institute's whole graduate program and the second, a sum of \$329,400, will make it possible to expand graduate training in the specific field of child psychiatry. Dr. Russell R. Monroe directs the graduate training at the Institute with a curriculum requiring from three to five years postgraduate study beyond the first year of general internship. This training prepares physicians for careers in general psychiatry or for concentration in specific fields, such as child psychiatry, social psychiatry, or psychoanalytic therapy. Graduate training in child psychiatry is supervised by Dr. Frank T. Rafferty, Associate Professor of Psychiatry.

## Twenty Five Years Ago in the

# BULLETIN

DR. HUGH McNALLY reviewed "The Current Status of Obstetrical Analgesia," and pointed out that the barbiturates were becoming more popular, as was also the use of local anesthesia. He described the use of paraldehyde at the University Hospital and declared it was being used with some enthusiasm. However, he warned that the armamentarium did not include any substance that would effect a completely painless labor and delivery, without affecting labor, the mother, or the baby in some undesirable manner.

Dr. H. Vernon Langluttig reviewed a recent case of pulmonary amebic abscess. This was then a rare condition which was treated by thorocotomy and emetine. He urged more awareness of the incidence of amebic dysentery and its complications.

It was an unhappy year in that there were reported no less than 55 deaths among the alumni. Prominent among them were Dr. George Walker and Dr. John Randolph Winslow, Professor Emeritus of Rhinology and Laryngology.

The present President of the Alumni Association, Dr. Frank Morris, was the Association's Secretary in 1937, under the leadership of Dr. Robert P. Bay.

During the reunion proceedings, the Class of 1912 had a large turnout for its

25th reunion. Incidentally, the oldest Alumnus present was Dr. William H. Marsh, Class of 1876, who at age 86 was enjoying retirement status from the U. S. Department of Health.

The address at the Precommencement exercises was made by Dr. Maurice Pincoffs. He expounded on the theme "A Happy Balance In All Things," for "by this means I feel you will continue the growth of mind and character so auspiciously begun; you will either solve the problems now besetting us or find philosophy to endure such as remain. . . ."

Senator Tydings delivered the address at College Park. In the course of his speech he said, "They (Graduates) must understand what taxation is wholesome and beneficial for the people and what expenditures of public funds are wise and sound and must have a knowledge of international relations and the extent of our natural resources."

Dr. Curley Byrd announced that a half million dollars was available for a new medical building and that construction would "soon begin."

The Alumni Association stated that the Commencement Exercises of 1937 were the most successful of any to that date.

## William K. Diehl

### 1913-1962



ON APRIL 19, 1962, the comparatively short medical career of Dr. William K. Diehl came to an untimely end. Death came to him in his sleep, although he had been in ill health for several years.

Dr. Diehl was born in New York City. However, the family made their permanent residence on Skyline Road in Ruxton, Md.

He entered Wake Forest College in 1930 and from this institution received his Bachelor of Arts Degree in 1934. He then entered the College of Physicians & Surgeons of Columbia University in 1934, and graduated in 1938. Well-liked by his classmates and faculty alike, he was known for his wit and keen sense of humor. He was a modest person who took particular interest in the management of the patients under his care. This fine attribute he carried throughout his medical career. His internship was served at Methodist Hospital in Brooklyn,

N. Y., from 1938 to 1940. From there he entered the residency training program at University Hospital in Baltimore and served from 1940 to 1942. He was a Fellow in Gynecology at the University of Maryland from 1942 to 1943.

Dr. Diehl soon entered the practice of gynecology and was most successful as physician, surgeon, and friend to his patients. He also became a Fellow in the American College of Surgeons. Dr. Diehl joined the staff of Lutheran Hospital in 1945 and was appointed Chief of Gynecology in July, 1947. In 1961, he was appointed Chairman of the Department of Obstetrics and Gynecology at Lutheran Hospital. At the time of his death, he was Associate Professor of Obstetrics and Gynecology at the University of Maryland and Director of Gynecological Oncology at University Hospital. Dr. Diehl was also a member of the Visiting Staff at Maryland General Hospital and Women's Hospital, and served as Consultant at the Baltimore City Hospitals.

During his career he wrote and published numerous papers and served on many committees at both University and Lutheran Hospitals. Even though Dr. Diehl was hampered in later years by heart disease and diabetes, he continued to lead a full life, was always willing to lend a helping hand, and was admired, loved, and respected by all regardless of age, race, or creed.

The University of Maryland extends its heartfelt sympathy to his wife, Mrs. Ann Diehl, and to his mother and sisters. The community has lost a fine physician.

WILFRED H. TOWNSHEND, JR., M.D.



*Some few weeks ago the President of the University addressed the student body in College Park. President Elkins' address entitled "The University and the Student" is an informative and delightfully written bit of informality which somehow accomplishes a very difficult task, that of creating, from the President's point of view, the image of the University he sees and envisions for the future.*

*The School of Medicine is a part of the entire University. Physicians often confine University concepts in a rather narrow fashion, forgetting the interrelationship of the Medical School with the whole University. Dr. Elkins' address is not only informative but is important.*

—EDITOR

## The University and the Student\*

**WILSON H. ELKINS, B.A., M.A., Litt.B., D.Phil.**  
**President, University of Maryland**

THE ANNOUNCEMENT of the President's Convocation is received each year with mixed emotions. Members of the administration and *The Diamondback* who do the planning and assume the responsibility for attracting enough students and faculty to avoid embarrassment spend many anxious days promoting the idea that the president might have something to say, but wonder about the effectiveness or truth of their propaganda. Generally, the students are pleased with the announcement, but for different reasons. Some are happy because they will miss a class or two without penalty; others because they can do as they please; and still others because there is always the possibility that the president really will have something to say. The faculty is even more difficult to predict. A few have been known to hold classes as an expression of academic freedom, and as a protest against the very principle of administration in the University. Some intend to come but forget the date. Others remain in their offices and labora-

tories, completely assured that salaries have never been raised at a convocation. And the rest come to pay their respects to a tradition, but are even less optimistic than the students about the outcome. Regardless of your motives, I want to thank all who are here and, particularly, Mr. McCormick and the members of the Board of Regents.

We are approaching the end of another year. It will be remembered longest not for academic accomplishments, but as the year Maryland tried to get to Florida without going through Virginia. After two monumental efforts—against Syracuse and Penn State—the long dormant malady of "Bowl Fever" swept across the campus. Showing little resistance to temptation, Maryland accepted a condition bid. In doing so, we scorned our final adversary and reaped a resulting harvest of fury. As a confident team prepared to push aside the last obstacle to fame and fortune, the excited student body began to lay plans for a special cavalcade to the Gator Bowl. Hardly a handful of students went to Charlottes-

\* Address to the student body of the University of Maryland, College Park, on March 28, 1962.

ville to see Maryland run over the door-mat of the conference. But, then—on Saturday, November 25—the bubble burst. The Old Dominion's Cavaliers rode relentlessly over our bewildered team. Bowl-bound Maryland came home to lick its wounds. The critics wailed. The coach rationalized. Students went back to their classes. And the voice of the faculty was heard again in the land of the Terrapin.

So the University goes on from day to day, with an occasional extracurricular excursion, without any major revolution, but hopefully forward. Its teaching, research, and services are making a substantial contribution to the economic and social development of the state and nation. The doors of the University have been kept open to the average as well as to the superior student, and they should be opened wider to people of all ages. Opportunity today requires a higher level of education. This factor, coupled with a growing population, accounts for the rapid increase in the enrollment of the University of Maryland. Although other institutions, such as the junior colleges, may accommodate some of the demand in Maryland, the University will continue to grow at a rate above the national average. Barring unforeseen developments, we will enroll as many as 25,000 regular day students by 1968. In itself, this is neither good nor bad; the test is on the matter of quality.

In an effort to maintain quality and improve upon the present, there will be a tendency to raise requirements for admission and demand a higher level of performance. This may be desirable. It would be unfortunate, however, if the University established requirements that would eliminate a large number of students capable of meeting adequate abso-

lute standards, and if standards of courses should be raised simply because of a long practice of eliminating a certain percentage of students. The University of Maryland will go slowly and surely in requiring higher qualitative requirements for admissions. The faculty should examine their own standards rigorously and, by the use of clearly defined and absolute measurements, avoid "curving" students out of school. The curve may be useful in testing the validity of examinations, but it is not a fair criterion of success or failure.

A continuous study of admissions and performance is necessary to enable the University to act on facts, to avoid mediocrity, and to apply a policy that is workable with a large student body. The Committee on Admissions and Scholastic Standing has indicated to me that "the plan under which the University has been operating has reached a point where a revision is imminent." Radical changes in the Academic Probation Plan are not anticipated, but you may look forward to some changes in the near future which will clarify and simplify the Plan.

While admission standards and academic regulations are important, the main purpose of the University, as far as students are concerned, is to provide instruction that will help the student to develop his interests and potentialities so that he may live more productively in a free society. How to accomplish this purpose is the problem. There is some disagreement in every field on the specialized or professional courses, but there is a much wider divergence of opinion on the general courses which will contribute most to citizenship training and life enrichment. The so-called "American Civilization" program has been in effect at Maryland for several years with only

minor modifications. During this time great changes have taken place in our society and in world affairs. Hence, it is appropriate that we have a periodic review of the general requirement. For this purpose, a special committee is studying the subject and will make recommendations to the faculty within the near future. This is a matter of unusual importance to students, and I think that the committee would welcome student as well as faculty expression on the existing program and on courses which might be considered in any revision.

You may ask what good does it do to express your views, when they may not be accepted. I think it does a lot of good. It would be improper, of course, to give students authority to set academic requirements, but it would also be inconsiderate to ignore the opinions of students who have had some experience. Last year the Committee on Instructional Procedures met with a number of student groups on the subject of cheating, and while the Committee did not find the solution to this grave problem, it did submit a report to the faculty and make some recommendations which may be helpful. Recently, the Student Government Association asked for a reappraisal of certain academic regulations, including regulations concerning absences. The Committee on Instructional Procedures is studying these suggestions. Incidentally, up to now, there has not been any request to review the policy of excusing seniors from final examinations. Surely, you realize that in a University of this size there is a heterogeneous population, and that all classes and kinds must be taken into account when considering changes.

In further reference to academic requirements on this campus, I would like

to mention basic ROTC. Recurring rumors penetrate the thick walls of the Administration Building to the effect that basic ROTC could be abandoned without a bloody revolution. But, as one student dared to say, the rumors have not penetrated the thick skin of the Administration. So it may surprise you that a change is in the offing in spite of our conviction that the ROTC program has been a good thing for the University and the students. The Air Force has proposed a new plan which, if approved, will eliminate basic ROTC and establish a subsidized advanced program for those who select it and can qualify. Pending this change, we have not recommended any modification. But the time is not far off. When and if we succumb to Air Force priorities and to limitations of our Physical Plant, those among us who feel that the change will weaken the program for youth may get some solace from the fact that adult judgment of the younger generation has not always been reliable. Occasionally, in fact, it has been distorted by what has been described as "middle-aged myopia and nostalgic memories."

Whatever the result of impending changes in ROTC, the University will continue to strengthen itself academically. Faculty development through better salaries, recruitment of top-flight personnel, recognition of effective teaching, aid in the pursuit of advanced degrees, and the encouragement of research have been given the highest priority. To aid in teaching and research, millions of dollars have been and will be spent to improve the libraries, offices, classrooms, and laboratories. Notable examples of special resources are the language laboratory, the electron microscope, the betatron to aid in the treatment of cancer, the Van de Graff generator in physics, the nuclear

reactor, the nuclear spectrometer, and the \$2,000,000 computer science center now being developed. Research is expanding at a rate of more than \$1,000,000 annually. Honors Programs have been approved in the College of Arts and Sciences and, as other undergraduate colleges add similar programs, an increasing number of excellent students will have further opportunity to develop their capacities for leadership.

As we do more to educate the superior student, we cannot ignore the need to do a better job with the vast majority of ordinary students who are capable of doing college work. Most of you who are listening will make "C's" and "B's." With a little more effort some of you can make "A's" and "B's," and still remain reasonably well-rounded. The problem is one of motivation and application on the part of the student, and effective teaching and guidance on the part of the faculty and administration. Reports are encouraging, but I still hear from time to time that some instructors inform their classes at the beginning that one-third to one-half will fail. I hope that it is just an ugly rumor. I also hear that some courses are almost devoid of content. This accusation calls for inventory and re-examination. Of course some subjects are more exciting than others—and this will always be true. It does not mean, however, that certain courses are inherently dull. We need to be more tolerant of individual differences, at both the faculty and student levels, but we do not need to tolerate indifference to learning or teaching.

The growth and improvement of the University will require additional faculty and facilities. Recognizing this need, the 1962 General Assembly of Maryland continued to provide faculty positions

proportionate to increased enrollment. A new range of salaries for Associate Professors and Professors was accepted. The University did not get everything it requested or needs, but the sympathetic and understanding attitude of the Governor and the General Assembly is very encouraging.

In the area of capital improvements, the University received a total of \$5,454,000; divided into an allocation of \$2,772,500 for College Park, \$2,077,500 for Baltimore, and \$604,000 for Maryland State College. While this is the largest amount ever received in one year, it will barely accommodate our essential requirements for classrooms, laboratories, and housing. Appropriations for College Park include funds for a number of improvements in addition to the first dormitory in a new complex at the corner of Stadium Drive and University Boulevard. After considerable anxiety, an appropriation of \$130,000 was made to enable the University to proceed with final plans for a Fine Arts Building which, when completed, will take music out of the gulch, art out of the attic, and speech and dramatics out of Vice President Hornbake's hair. If everything goes on schedule, there will be space for more students, but it will be necessary to use all facilities at least ten hours a day.

The dormitory situation is critical. The current plan, dictated by limited funds, is to add one dormitory of five hundred capacity each year. The one now under construction is a large question mark in our September 1962 plans. This shortage of accommodations will impose some reduction in the admission of new out-of-state applicants, but we do not anticipate a reduction below 15% of the total undergraduate enrollment. A reasonable number of students from other states and

from foreign countries provides an educational asset of immeasurable value—to say nothing of a few athletes and some attractive girls. There is a possibility of another village of pre-fabricated houses. This will be determined by future developments.

There are recurring questions about a change in the academic calendar to a “trimester” or quarter plan in order to use facilities more fully during the summer months and to enable students to graduate in three years. This subject has been studied by a committee of the faculty and by the administration. We are not convinced that facilities would be used much more efficiently than at present, and we are doubtful that any sizeable percentage of the students would choose to graduate in three years or should attempt to do so. A change to a quarter system would cost the state about 20% more in operating funds. To be effective, it would require a degree of compulsory attendance during the summer term or quarter. Since little if any money would be saved, a sound decision hinges upon student needs and desires. We shall continue to study the feasibility of a change. In the meantime, the summer school will be extended to eight weeks, and possibly longer. This will provide an opportunity for students to accelerate their progress toward a degree.

As the pressure mounts for more facilities and more faculty to take care of the rising tide of students, there will be pressure to raise tuition and fees in the public colleges and universities. While modest increases proportionate to increased family purchasing power can be expected and justified, the public university can never justify a cost that would eliminate many able students. There have been small increases at the University of Maryland

during recent years. Next year fixed charges will be raised from \$185.00 to \$200.00, and the semester hour cost for part time undergraduate and for graduate students will go from \$12.00 to \$15.00. Effective in June of 1962, room rent will be increased by a little more than 10%. These changes have been approved in order to provide the same proportionate share of expenses which have been paid by the student for several years and to enable the University to continue to operate the dormitories and dining halls on a self-support basis. They do not constitute any real barrier to higher education.

While faculty, facilities, and substantial appropriations are necessary to carry out the primary purpose of the University, all lessons are not learned in the classrooms or the libraries. The main purpose of an educational institution is the development of the intellect, but the mind does not perform in a vacuum. It is only natural and proper that sports, politics, social affairs, and other activities should occupy a part of each student's time. If kept in their proper place and not permitted to be the main show, they are of real value to the student and to the morale of the University. One of the advantages of a large institution is that there are numerous extracurricular activities to accommodate a variety of interests. Some are closely related to intellectual and professional development; others serve the whole student body; still others are for fun.

Social organizations have been associated with universities for many years and have long been a subject of controversy. There are advantages and disadvantages to social fraternities. They have made significant contributions to student welfare and, at the same time, they have

been a source of concern. Too often they have considered themselves independent of University jurisdiction, while depending upon University sanction for existence and enjoying the benefits of University affiliation. As an organized group, they have provided strength and constructive effort for the promotion of worthy projects. But at times, this strength has been used to defy University regulations. The University cannot have one set of rules for fraternities and another for dormitory residents; all rules must be uniformly applied for the common good. Some fraternities on this campus have violated or resisted regulations, particularly the rule concerning the use of alcoholic beverages. This is not a moral issue with the University, but a regulation based upon practical considerations. It is intended to promote the general welfare and to fulfill the obligation to maintain conditions which contribute to a favorable climate of learning. University officials cannot and should not be expected to assume responsibility for the conduct of student affairs under circumstances which cannot be controlled. Fraternities, like other organizations, will prosper if they subscribe to and support the policies of the University; they will decline and eventually disappear if they give only lip service to their high ideals and purposes. The University is committed to devote its time and talents to the improvement of the individual, and this should be the central purpose of all organizations associated with it. The University seeks cooperation and will give support to all who merit encouragement.

Another important subject which generates a great deal of heat for the University is that of intercollegiate athletics. The scope of the program is significant.

Last year more than one thousand students participated in freshman and varsity sports. They do not take the place of our fine intramural program or physical education activities; they are intended for those who have highly developed skills. Actually, intercollegiate athletics have contributed much to the interest in sports of all kinds and at all levels. They have provided facilities for physical activities used by all students. While admitting that physical fitness is a national problem, it would be a more serious problem if organized athletics did not exist. True, there have been abuses in highly organized competition in colleges and universities, and we must be constantly on guard against practices that are detrimental to the participants and harmful to the schools. Sporadic abuses, however, do not call for a drastic change. Within the framework of sound educational policies, the University of Maryland will continue to sponsor athletic teams and will strive to excel in every contest.

As indicated, there are some things about athletics which are controversial and questionable. In my opinion it would be better if all colleges abandoned recruiting, but this is not an immediate prospect. It would be better if a larger percentage of our athletes at Maryland, particularly in football and basketball, came from the Maryland-Washington, D. C., area, and this will be accomplished gradually. It would be better if some alumni were as excited about academic excellence as they are about athletic victories. It would be better if student support were the same when losing as when winning, but this is not a realistic aim. (I do hope, however, that you will not go to Florida next year until we have played Virginia.)

In summary, I would prefer an ideal situation, but I know that utopias exist

only in the imagination. So, while we strive for improvement, we shall continue a program in which a significant number of students participate and which contributes to the elusive but important spirit of the student body.

The University and the student are inseparable. Faculty research and public services are important functions, but the University is identified with the student and judged by its value to the student. As formal education becomes more essential to individual opportunity and to the state and national welfare, the responsibilities of the colleges and universities become more and more awesome. If the unique American experiment in universal education fails, democracy will lose its vitality and purpose. The structure of higher education must be strengthened as we strive to educate the masses and at the same time improve quality. The individual and individuality must be recognized and encouraged. If individuality is submerged in a mass of mediocrity, this country will lose its leadership and the cause of freedom will suffer a terrible blow.

The student has everything at stake in this gigantic effort to maintain quality. In a democracy where there is freedom of choice, the individual may choose the road to achievement or he may take the path of least resistance.

The important factor will be self-discipline. The University can offer guidance and instruction, but it cannot make the final determination. Only the student can make this choice, and unless self-discipline is imposed from within it will not endure. To accumulate knowledge, to organize facts, to acquire skills, to learn to think, to develop character—these are the aims of education; and all of these require self-discipline.

The climate of the University of Maryland is improving. It is improving because of the competence and the efficiency of the faculty and staff, and because you—the students—are responding to the call for a better place in which to pursue your ambitions. As we move ahead, remember that there is much more within your reach than you realize. In this exciting age of space, the goals of yesterday are not enough. Our frontiers lie beyond the stars.

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## POSTGRADUATE COMMITTEE SECTION

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PATRICK B. STOREY, M.D., *Chairman and Director*

ELIZABETH B. CARROLL, *Executive Secretary*

Postgraduate Office: Room 201

Davidge Hall, 522 West Lombard Street, Baltimore 1, Maryland

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The University's Postgraduate Medical Education program continued to develop during 1961-62. The following courses of instruction were given on the Baltimore Campus:

### **Basic Electrocardiography**

This 3-day course was given on November 2, 3, 4, 1961 at the Baltimore Union Building under the direction of Dr. Leonard Scherlis, Associate Professor of Medicine and Head of the Division of Cardiology. As in the previous year, the number of physicians enrolled was limited to 30. The basic principles of electrocardiographic technique in diagnosis were presented in comprehensive fashion. Each participant in the course was given a Course Manual, written by Dr. Scherlis and his staff, together with a set of unknown tracings and their interpretations. Intensive small group drills in the interpretation of these provided tracings followed the lecture presentations. Instruction was thus highly individualized. Once again the course proved to be highly popular with the physicians who took it.

The participating faculty were Dr. Leonard Scherlis, who directed the course; Drs. Luis F. Gonzalez, Yu-Chen Lee, Henry J. L. Marriott, Robert T. Singleton, Kyle Y. Swisher, and Theodore E. Woodward.

### **Neuropathology for Pathologists**

This highly specialized course was given under the direction of Dr. John A. Wagner, Professor of Neuropathology, from November 13 through 17, 1961. For purposes of individualization of instruction, a ceiling of 12 students was set, although we did ultimately accept 13. Because of the acceptance of the course by the physicians who took it and its obvious success, and because of the over-subscription to it which caused us to reject applicants, this course will be given again during 1962-63. Members of the faculty who participated in this course were Dr. John A. Wagner, its director; Drs. James G. Arnold, Robert P. Boudreau, J. Edmund Bradley, Robert M. N. Crosby, Harlan I. Firminger, Russell S. Fisher, Henricus Kuypers, D. Frank Kaltreider, Richard Lindenberg, William H. Mosberg, Jr., and Charles Van Buskirk. Drs. George K. Baer and G. Allen Moulton assist, and Dr. Abner Wolf was the guest lecturer.

### **Endocrinology and Metabolism**

This 2-day course was offered on January 12, 13, 1962 under the direction of Dr. Thomas B. Connor, Associate Professor of Medicine, and Dr. John G. Wiswell, Associate Professor of Medicine. Thirteen practicing physicians attended this course. In addition, 21 mem-



bers of our house staff subscribed for and attended. We ran into a small disaster in the circularization of this course in that all of the brochures that were sent out a month prior to the course were delivered through the mails a week after the course had been given. A check with our mailing house indicated that this phenomenon had occasionally happened in the past where bulk 3rd class mail is lost in the Christmas mail rush.

The University of Maryland faculty who participated in this course were Drs. Thomas B. Connor, John G. Wiswell, and Charles E. Shaw. The guest faculty were Drs. Reuben Anders, Robert M. Blizzard, James B. Field, Grant W. Liddle, and Theodore Winship.

#### **Advances in Medical Science**

This course was given each Wednesday afternoon from January 10 through May 16, 1962. Thirty-one physicians from Baltimore and surrounding sections of the state plus 12 members of the University Hospital House Staff registered for this course. This is a lecture series designed to present to men in practice the important advances in medical science, with emphasis placed upon a basic scientific approach to an understanding of the more common clinical problems and their management. This course is given in the form of two 1-hour lectures on 19 consecutive Wednesday afternoons.

#### **Clinical Anatomy**

Under the direction of Dr. Otto C. Brantigan, this course runs through the full second semester of the medical school, with meetings on Monday afternoons and Wednesday mornings. Emphasis is placed on the practical application of anatomy and anatomical principles in the physical and x-ray diagnosis. Anatomical knowledge is related to the

use of needling in performing diagnostic procedures and in treatment. The course is directed toward both the medical man and the surgeon. It is an aid in the preparation for the American Board examination. Enrollment is limited to 18 physicians and the tuition fee is \$150.00.

#### **Clinical Cardiology**

This 3-day course was given on February 1, 2, 3, 1962, under the direction of Dr. Leonard Scherlis and was limited to 30 students. Emphasis was given to the subjects of coronary artery disease, congenital heart disease, rheumatic fever and rheumatic heart disease, congestive heart failure, and the arrhythmias. Small group practice sessions were utilized for purposes of drill, and live patient clinics were held. Each of the participating physicians was equipped with manuals of instruction and case presentations which had been composed by Dr. Scherlis.

The faculty members who participated in this course were Drs. Leonard Scherlis, Francis J. Borges, Robert P. Boudreau, R. Adams Cowley, William C. Esmond, Luis C. Gonzales, Leo N. Karpeles, Yu Chen Lee, Sidney Scherlis, Robert T. Singleton, Kyle Y. Swisher, Karl H. Weaver, and Theodore E. Woodward.

#### **Hematology**

This course was given on March 8, 9, 1962, under the direction of Dr. Milton S. Sacks. The enrollment was limited to 25 students and was fully subscribed. The course was divided into lectures and workshops. Basic physiology of blood formation, hemoglobin metabolism, and iron metabolism were considered, followed by a presentation of the anemias, jaundice, the leukemias, the various blood dyscrasias, and purpuras. In the workshops the various techniques utilized in the hematology laboratory were dem-

onstrated. The faculty of the School of Medicine who participated in this course were Dr. Marie A. Andersch, Miss Elsa F. Jahn, Dr. Rouben Jiji, Mr. Max Masters, Drs. Milton S. Sacks, Carroll L. Spurling, and Joseph B. Workman. The guest faculty were Drs. Kenneth M. Brinkhous, Emil Frei III, Eugene Kaplan, Sarah E. Stewart, and Frederick Stohlman.

#### **Pediatrics**

The Eleventh Annual Postgraduate Pediatric Seminar was given on Sunday, April 1, 1962, under the direction of Dr. J. Edmund Bradley. In addition to Dr. Bradley, the following University faculty members participated—Drs. Lester H. Caplan, Abraham H. Finkelstein, Kurt Glaser, Robert B. Schultz, Arnold L. Vance, Stewart H. Walker, and Theodore E. Woodward. The guest lecturers were Drs. Stella Chess, David Yi-Yung Hsia, Edith M. Lincoln, and Joseph Stokes. As in the past, the physicians who attended this seminar filled the Gordon Wilson Hall to capacity.

A second aspect of the Postgraduate Medical Education Program was accomplished by monthly visits of our faculty to other hospitals in the state of Maryland.

During the coming year we will continue to develop the program in Postgraduate Medical Education. Specifically, we plan to add a 2-day program to be offered at the Washington County Hospital in Hagerstown in October 1962. This will be an intensive review of many aspects of medicine, offered away from home for the convenience of physicians who may find it difficult to come to Baltimore.

In addition, the program in Industrial Health will be resumed this coming year, and we plan to add a course in Gastroenterology under the direction of Dr. Vernon Smith.

Full information on all postgraduate courses may be obtained from the office of the Postgraduate Committee.

## ALUMNI DAY NOTES, 1962

MORE THAN two hundred Alumni of the School of Medicine registered on Thursday, June 7 for the annual Alumni Day on the Baltimore campus.

Following a reception by the officers of the Association and a special committee, of which Dr. Isadore Kaplan was chairman, the Alumni adjourned to Chemical Hall where they were addressed by three of the top administrators of the University of Maryland.

Dr. Albin O. Kuhn, executive vice-president of the University of Maryland, spoke on "Expansion Program of the University of Maryland, Baltimore Campus," outlining the plans for additional school and other buildings, the increase in the size of the campus from the present 8 acres to more than 22 acres, the redevelopment plans and projects for the future.

Dean William S. Stone spoke on "The Changing Philosophy in Medical Education," pointing out the projected and planned programs for the School of Medicine.

Mr. Lad F. Grapski, Director of the University Hospital, followed Dr. Kuhn in detailing some of the plans for the University Hospital with particular emphasis on the development of additional diagnostic, research and out-patient facilities in the projected new addition to the hospital which will rise between Howard Hall and Greene Street in the redevelopment area along Baltimore Street west of Greene Street.

### Arturo Casilli Receives Honor Award

Following the formal addresses, Dr. Arturo R. Casilli of the Class of 1914 was presented the Annual Alumni Honor Award and Gold Key by Dr. Frank K.

Morris, President of the Medical Alumni Association, assisted by Dr. William S. Stone, representing the School of Medicine. Dr. Casilli responded with a very grateful and gracious acknowledgement.

### Business Meeting

Dr. Frank K. Morris, President of the Medical Alumni Association, called the meeting to order. The minutes of the previous annual meeting were read by Dr. Francis J. Borges, Secretary. This was followed by the annual treasurer's report presented by Dr. Howard B. Mays, Treasurer.

A motion was then made to combine the annual meeting of the Medical Alumni Association with the annual meetings of the Medical Society of the University Hospital, the University Hospital Surgical Association and the Louis H. Douglass Obstetrical and Gynecological Association. It was pointed out that the combined meetings would occur earlier in the Spring and would obviate the necessity of many dual trips to the School of Medicine. Tentative date for the next annual meeting would be during the first part of April. Additional notices are to be carried in the BULLETIN of the School of Medicine.

Dr. William H. Triplett then reported on the Student Loan Fund which has in it at present a balance of \$2,398.00 with outstanding loans of \$1,325.00.

### New Officers Nominated

The President then called upon the Chairman of the Nominating Committee for its annual report. The slate presented included for President, Dr. George H. Yeager; President-Elect, Dr. Gibson J. Wells; Vice-Presidents, Drs. Hugh Ward, Wylie Faw and Philip Insley;

Secretary, Dr. Francis Borges; Treasurer, Dr. Howard B. Mays; for the Board of Directors, Dr. Harold Biehl, Dr. Renner Smelzer and Dr. Joseph D'Antonio.

Representatives to the General Alumni Council included Drs. Frank K. Morris, Arthur Siwinski and William H. Triplett. Nominations from the floor for the Nominating Committee included Drs. Patrick Phelan, Aaron Sollod, and J. King B. E. Seegar. It was duly moved, seconded and adopted that the slate and the nominations for the nominating committee be accepted unanimously. This was carried.

Dr. J. Morris Reese next proposed that the society adopt a standard questionnaire and nomination form to be used to present nominations to the Board of Directors for the Annual Alumni Honor Award and Gold Key. The motion was carried.

#### Successful Luncheon

Following the business meeting, Alumni adjourned to the Student Union Building where luncheon was served. Following the luncheon, conducted tours of the campus were offered the several class groups. Class reunions and the annual dinner followed, the latter being at 7:00 P.M. At this meeting honored were the graduates of the Class of 1962 and their fifty-year predecessors, the Class of 1912. An innovation of the dinner was that of a quartet which sang appropriate melodies relating to the reunion classes and their year of graduation. More than 450 Alumni and guests attended the annual dinner.

#### Dean's Day, June 8

Preceding the June 9 Commencement at College Park, the Dean's Day at the School of Medicine was celebrated on June 8 and in honor of the Class of 1962. Honors for the Class of 1962 included

the Faculty Gold Medal and Balder Prize to Louis R. Caplan (*Summa Cum Laude*).

Certificates of Honor (*Magna Cum Laude*) were awarded to Drs. Frank A. Carozza, Alan B. Lachman, Lois H. Love, Phyllis K. Pullen, Michael M. Shefferman and William Holmes Wood.

#### Prizes Awarded

The Dr. A. Bradley Gaither Award in Genito-Urinary Surgery was won by Louis C. Breschi. The Dr. Leonard M. Hummel Memorial Award in Medicine was awarded to Frank A. Carozza. The Dr. Harry M. Robinson Prize in Dermatology was won by Dr. Phyllis K. Pullen. Dr. Bruce D. Broughton was awarded the Dr. Wayne W. Babcock Award in Surgery while Jay Harris was the recipient of the American Psychiatric Association Award. Merck Manual Awards went to Bernard Karpers, Jr. and Thomas Moshang, Jr. An award for excellence in Internal Medicine was presented to Laurance R. Gallager.

Student Council Keys were awarded to Jack W. Bowerman, Jon W. Farinholt, John A. Rupke and Gregory Sophocleus. Student Council Certificates were awarded to Raymond D. Bahr, Jack W. Bowerman, Jon W. Farinholt, William T. Johnstone, Melvin D. Kopilnick, Theodore C. Patterson, John A. Rupke, Gregory Sophocleus and William B. Weglicki, Jr.

The festivities, which were preceded by an academic procession, then included an address entitled "World Medicine" by Dr. Kenneth Goodner, Professor of Microbiology and head of the department at the Jefferson Medical College in Philadelphia. Dr. Goodner, known for his research in infectious diseases, is a former student at Harvard University under the late Dr. Hans Zinsser.

## PRESENTING THE CLASS OF 1962

On June 8 at College Park, President Elkins, assisted by Dean Stone, presented diplomas to the newly created physicians of the Class of 1962. These doctors immediately left for vacations prior to beginning their postgraduate training. The Class of 1962 is listed below with the hospitals where they will continue their postgraduate studies:

ANDERSON, IAN R. South Baltimore General Hospital, Baltimore, Md.	CLOSSON, JON B. Akron City Hospital, Akron, Ohio
BAHR, RAYMOND D. St. Agnes Hospital, Baltimore, Md.	CRAMTON, DAVID C. Harrisburg Hospital, Harrisburg, Pa.
BAKER, JOSEPH F. St. Agnes Hospital, Baltimore, Md.	CULLIS, THOMAS C. Mercy Hospital, Baltimore, Md.
BARRICK, DONALD M. University Hospital, Baltimore, Md.	DUGAN, HAMMOND J., III Mercy Hospital, Baltimore, Md.
BAUMANN, GOTTFRIED South Baltimore General Hospital, Baltimore, Md.	ENSOR, PAUL G. South Baltimore General Hospital, Baltimore, Md.
BERMAN, MERRILL I. South Baltimore General, Baltimore, Md.	FELSER, FRED S. University Hospital, Baltimore, Md.
BOKAT, ROBERT B. Public Health Service	FEUERMAN, HARVEY S. Sinai Hospital, Baltimore, Md.
BONOVICH, KERMIT P. South Baltimore General Hospital, Baltimore, Md.	FIGELMAN, LEONARD J. Public Health Service
BOWERMAN, JACK W. U. S. Air Force Hospital, Biloxi, Miss.	FRANKLIN, A. LEO University Hospital, Baltimore, Md.
BRADLEY, MARK E. University of Virginia, Charlottesville, Va.	FRATTO, CARMEN A. St. Agnes Hospital, Baltimore, Md.
BRESCHI, LOUIS C. U. S. Air Force, Carswell Air Force Base Hospital, Fort Worth, Texas	FRIEDMAN, MICHAEL University Hospital, Baltimore, Md.
BROUGHTON, BRUCE D. Harbor General Hospital, Torrance, Calif.	GAITHER, HERBERT Harrisburg Hospital, Harrisburg, Pa.
BURGAN, PAUL Mercy Hospital, Baltimore, Md.	GALLAGER, LAURENCE R. University Hospital, Baltimore, Md.
BURKE, FRANCIS J. Rhode Island Hospital, Providence, R. I.	GENDASON, HOWARD H. Mt. Sinai Hospital, New York, N. Y.
CAPLAN, LOUIS R. First and Third Medical Services, Tufts Univ. Hospital	GOLDSTEIN, BURTON D. U. S. Air Force Hospital, Scott Air Force Base, Belleville, Ill.
CAROZZA, FRANK A., JR. University Hospital, Baltimore, Md.	HARRIS, JAY B. Kings County Hospital, Brooklyn, N. Y.
CHILD, DAVID L. Public Health Service	HAWKINS, IRVIN F., JR. Mercy Hospital, San Diego, Calif.
	HAWS, JOHN P. Union Memorial Hospital, Baltimore, Md.
	HEINRITZ, COLEN C. South Baltimore General Hospital, Baltimore, Md.
	HILLS, J. DIXON Union Memorial Hospital, Baltimore, Md.
	HOFFENBERG, ROBERT A. Sinai Hospital, Baltimore, Md.
	HUNT, EDWARD O., JR. Sinai Hospital, Baltimore, Md.
	JOHNSTONE, WILLIAM T. Presbyterian St. Luke

- KARPERS, BERNARD S., JR.  
University Hospital, Baltimore, Md.
- KATZ, MAYER M.  
University of California, San Francisco, Calif.
- KAUFMAN, LOIS M.  
University Hospital, Baltimore, Md.
- KAUFMAN, STEPHEN H.  
San Francisco Hospital, San Francisco, Calif.
- KLATSKY, STANLEY A.  
Sinai Hospital, Baltimore, Md.
- KLIMES, RONALD L.  
Akron City Hospital, Akron, Ohio
- KOENIGSBERG, EDWARD J.  
Sinai Hospital, Baltimore, Md.
- KOHLHEPP, PAUL A.  
U. S. Air Force Hospital, Biloxi, Miss.
- KOPILNICK, MELVIN D.  
Sinai Hospital, Baltimore, Md.
- LACHMAN, ALAN B.  
University Hospital, Baltimore, Md.
- LANPHEAR, DAVID M.  
South Baltimore General Hospital, Baltimore, Md.
- LAW, WILLIAM R.  
Mercy Hospital, Baltimore, Md.
- LEHMAN, DENNIS L.  
Memorial Hospital, South Bend, Ind.
- LINDBERG, BRUCE A.  
St. Vincent Hospital, Worcester, Mass.
- LING, ALFRED S. C.  
Pennsylvania Hospital, Philadelphia, Pa.
- LING, JOHNSON S. L.  
Roosevelt Hospital, New York, N. Y.
- LOTT, LEYMOND W.  
St. Agnes Hospital, Baltimore, Md.
- LOVE, LOIS H.  
South Baltimore General Hospital, Baltimore, Md.
- LUXENBERG, EDWIN R.  
Sinai Hospital, Baltimore, Md.
- MACMURRAY, PETER S.  
University Hospital, Baltimore, Md.
- MALAN, KENNETT P.  
Public Health Service
- MASTAN, PETER F.  
Mercy Hospital, Baltimore, Md.
- MCCORMICK, ROBERT A.  
Harrisburg Hospital, Harrisburg, Pa.
- MERRING, LEROY L.  
George Washington Univ. Hosp., Washington, D. C.
- MOSHANG, THOMAS, JR.  
Pennsylvania Hospital, Philadelphia, Pa.
- MUSGJERD, DAVID G.  
Ancker Hospital, St. Paul, Minn.
- O'ROURK, THOMAS R., JR.  
Washington Hospital, Washington, D. C.
- ORTON, THOMAS K.  
W. H. Groves L D STS
- PATTERSON, THEODORE C.  
Sinai Hospital, Baltimore, Md.
- PAUL, DAVID B.  
Delaware Hospital, Wilmington, Del.
- PET, DONALD D.  
York Hospital, York, Pa.
- PETERSON, VERNE A.  
Lenox Hill Hospital, New York, N. Y.
- PRATT, JORDAN C.  
York Hospital, York, Pa.
- PULLEN, PHYLLIS K.  
University Hospital, Baltimore, Md.
- RUPKE, JOHN A.  
Butterworth Hospital, Grand Rapids, Mich.
- SATOU, ALAN H.  
Los Angeles City Hospital, Los Angeles, Calif.
- SCHMIELER, GEORGE C.  
St. Agnes Hospital, Baltimore, Md.
- SEMER, HOWARD A.  
Mt. Sinai Hospital, New York, N. Y.
- SHEFFERMAN, MICHAEL M.  
University Hospital, Baltimore, Md.
- SOPHOCLEUS, GREGORY J.  
St. Agnes Hospital, Baltimore, Md.
- SOTHORON, WARREN H., JR.  
St. Agnes Hospital, Baltimore, Md.
- STEINWALD, OSMAR P., JR.  
Presbyterian St. Luke
- STEPHENSON, RICHARD R.  
Union Memorial Hospital, Baltimore, Md.
- TRAUM, ARTHUR W.  
Jewish Hospital, St. Louis, Mo.
- TUTTLE, KENNETH W.  
University Hospital, Baltimore, Md.
- UPDIKE, RALPH E.  
St. Agnes Hospital, Baltimore, Md.
- VILK, VICTOR J.  
St. Lukes Hospital, Denver, Colo.
- WEGGLICKI, WILLIAM B., JR.  
Georgetown University Hospital, Washington, D. C.

Con't on p. xxi

## Minutes of the Board of Directors Medical Alumni Association

*Jan. 25, 1962*

Dr. J. Morris Reese presented the name of Dr. Arturo Raymond Casilli, class of 1914, as the Alumni Award Committee's selection of the honor alumnus for 1962. Dr. Reese is to present a formalized program regarding the method of selecting the recipient for the future Annual Alumni Awards. This format is to be incorporated into the by-laws.

Dr. Edward F. Cotter, Chairman of the Committee to Correlate Alumni Day with the annual meetings of the University of Maryland Hospital Surgical, Medical, Obstetrics and Gynecological Societies, reported that his committee felt that each society should be approached at their next business meeting by the Alumni Association regarding a correlated and combined program. The Board of Directors voted unanimously to present this request to the various societies and delegated Dr. William H. Triplett to contact respective presiding officers.

*February 22, 1962*

Dr. Jordan M. Scher will host a cocktail party at the Rotunda Club, 148 East Superior Street, Chicago, Ill., for the University of Maryland Alumni attending the American Medical Association convention in Chicago in June, 1962.

The Chairman of Alumni Day Activities, Dr. C. Parke Scarborough, reported

that the scientific portion of the day's activity would be presented by Dean William S. Stone, entitled, "The Changing Philosophy in Medical Education." Dr. Albin O. Kuhn, Executive Vice President of the University of Maryland, will present an illustrated talk on "The Expansion Program of the University of Maryland, Baltimore Campus."

This year the Board of Directors will entertain the "50 Year Men" and their wives at a cocktail party at the Lord Baltimore Hotel before the Alumni Banquet.

*April 26, 1962*

The Secretary read communications from Dr. Robert Buxton and Dr. Theodore Woodward assuring the Board of Directors that they would be more than delighted to cooperate with a plan of correlation of meetings of the Surgical and Medical University of Maryland Hospital Associations with the Alumni festivities.

Dr. Harry Robinson, Jr., was appointed as host for the Alumni Reunion to be held in conjunction with the SMA Meeting at Miami Beach November 12-15, 1962. Dr. George Yeager indicated that a Medical Exhibit, concerning Historical Maryland Medicine, would be on display in the Student Union Building from May 3 to June 8, 1962.

FRANK J. BORGES, M.D.

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### Con't from p. xx

WEISS, DONALD H.

Mercy Hospital, San Diego, Calif.

WILGIS, EDWARD F.

Union Memorial Hospital, Baltimore, Md.

ZAMPIELLO, FRANK A.

Hospital of St. Raphael

ZIKOSKI, PAUL L.

Harrisburg Hospital, Harrisburg, Pa.

*July, 1962*

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# *Class*

## NOTES

### Class of 1897

**Charles Sterling Jernigan**, formerly of Sparta, Ga., writes to the Alumni Association, "I have retired at the age of 88 from the graduating class of 1897. I am living at the A. G. Rhodes Home, 350 Boulevard Southeast, Atlanta, Ga. I wish I could be at the (alumni) reunion."

### Class of 1905

**James G. Matthews** of 226 West Sumner Ave., Spokane, Wash., writes, stating that he has not been well recently, having been "cut-down" by a severe coronary and other complications in the Spring of 1960. Dr. Matthews inquires of other members of his class, noting that he has himself now passed his 80th birthday. (The Alumni Office has obliged by furnishing Dr. Matthews a class list.)

### Class of 1919

**Rafael Santiago Vazquez** is in practice in Manati, Puerto Rico.

### Class of 1925

**Eva Dodge**, Professor of Obstetrics and Gynecology at the University of Arkansas Medical Center, has been elected president of the Pan American Medical Women's Alliance, an association of women physicians from the United States and the nations of Central and South America.

Dr. Dodge was recently installed at the Eighth Congress of the Alliance at Manizales, Colombia. She attended the Congress as part of a medical tour she

made in Central and South America. Dr. Dodge has been associated with the University of Arkansas Medical Center since 1945. She has served as secretary of the American Medical Women's Association.

### Class of 1936

**George H. Davis** has been recently promoted to the post of Associate Director of the Bureau of Child Hygiene in the Baltimore City Health Department. This bureau is responsible for the health protection of mothers and children in Baltimore City and particularly the many families with young children that cannot afford a family physician.

A native of Louisville, Ky., Dr. Davis received his early education in the public schools of Indiana and Delaware. In 1932, he received the Bachelor of Science Degree from Washington College in Chestertown, Md. Following his graduation from the School of Medicine, he served for four years as intern and resident in obstetrics at the University Hospital and was later appointed assistant professor of obstetrics in the School of Medicine of the University of Maryland and instructor in obstetrics at the Johns Hopkins School of Medicine.

In 1949, he joined the Health Department as Senior Medical Supervisor in charge of prenatal clinics, becoming Associate Chief of the Division of Maternity Hygiene in 1953. Dr. Davis is active on the staff of several of Baltimore's hospitals and is secretary of the Subcommittee on Maternal and Child Welfare of the Medical and Chirurgical Faculty of Maryland.

### Class of 1938

**Aaron Feder** has been elected Chairman of the Section on Medicine of the Medical Society of the State of New York for the year 1963.



Class of 1939



**Thomas Scott Sexton** has been recently named Vice President of the Massachusetts Mutual Life Insurance Company, assuming full charge of the new business division.

A native of Sisterville, W. Va., and an alumnus of West Virginia University, he served his internship at the Mercy Hospital in Baltimore and later served as fellow in internal medicine at the Mayo Foundation. During World War II, he served as a Major in the Army Medical Corps and following the war joined the Massachusetts Mutual Life Insurance Company in 1947 as assistant medical director. In 1951 he was named associate medical director and in 1956 was promoted to medical director. He received his latest appointment in June, 1959.

He is a member of the Association of Life Insurance Medical Directors of America and the Medical Section of the American Life Convention. He is also a member of The Home Office Life Underwriters Association and the Medical Directors Group of New England. Dr. Sexton lives in Granby, Mass.

Class of 1941

The BULLETIN again apologizes to **Dr. Robert B. Sasscer** for having "killed" him in the April 1962 BULLETIN. Dr. Sasscer's January BULLETIN was returned by the Post Office Department marked "deceased"; hence, the error. In reply to his having seen his obituary, Dr. Sasscer writes: "It was with some degree of shock and amusement that I have just read of my demise—. True, there are hectic days when the relative comforts of a pine box might be worth considering, but I have not taken any steps toward this end. I would like to report that I am very much alive and enjoying good health. I have recently built a new office, still in Upper Marlboro, and am actively practicing 24 hours a day. Had thought to enclose a recent photo to disprove the obituary. . . ." The BULLETIN apologizes; however, we have never had news from Dr. Sasscer until we wrongly accused him (EDITOR).

**Elizabeth B. Sherrill** has been named Secretary of the Baltimore County Medical Society for the year 1962-63. Dr. Sherrill practices in Cockeysville, Md.

Class of 1942

**Andrew J. Summa** has announced the removal of his office to the Professional Building at 104 Paddock St., Watertown, N. Y.

Class of 1943

**F. Mason Sones**, head of the Cardiac Laboratory of the Cleveland Clinical Foundation, delivered a paper entitled "Cineroentgenology of the Coronary Arteries" at the cardiac symposium sponsored by the Heart Association of Northern Virginia and Washington Heart Association, held in April, 1962.

**Class of 1944**

**Henry W. D. Holljes** is the co-author of a paper entitled "Seasonal Changes in Serum Cholesterol" published in the *Annals of Internal Medicine* in 1961.

**Albert I. Rubenstone** has been appointed assistant professor in the Department of Pathology of the Woman's Medical College of Pennsylvania. Following his graduation from the School of Medicine, Dr. Rubenstone served as resident in pathology and internal medicine at the Albert Einstein Medical Center from 1947 to 1952. In that year he was certified by the American Board of Pathology. For the past 5 years he has served as assistant professor of pathology at the University of Illinois School of Medicine. In addition to his work at the College, Dr. Rubenstone will be associated with the Veterans Administration Hospital, serving as chief of the laboratory service. His special research interests are in the heart and kidney. He is a member of many professional organizations including the American College of Physicians and the American Society of Clinical Pathologists. He is the author of some 25 papers relating to research in pathology.

**Class of 1945**

**Frank J. Ayd, Jr.** has left his practice in Baltimore for a 14-month stay in Europe during which time he will give a series of lectures at various European universities, as well as presenting papers at several international meetings.

Dr. Ayd's scientific program includes International Congress of Catholic Doctors in London, the British Medical Association meeting in Belfast, the International Collegium of Neuropsychopharmacology in Munich, and the International Congress of Internal Medicine, as well as the National Meeting of German

Psychiatrists and Neurologists, along with the International Congress of Pediatrics.

He will also deliver a series of lectures in Rome and will take time to work on a forthcoming monograph relating to psychiatry.

**Class of 1949**

**Jordan M. Scher** has announced the removal of his office to the Chicago Psychiatric Foundation, 867 N. Dearborn St., Chicago 10, Ill.

**Class of 1950**

**John C. Hyle** has been elected President of the Baltimore County Medical Association for the year 1962-63. Dr. Hyle succeeds Dr. Frank T. Kasik, also of the Class of 1950.

**Class of 1954**

**George R. Funkhouser** is a member of the staff of the Geisinger Memorial Hospital, Danville, Pa., where he practices radiology.

**Class of 1954**

**Ira N. Tublin** of 25 E. Wayne Ave., Silver Spring, Md., has been recently certified by the American Board of Internal Medicine.

**Class of 1956**

**Edward D. Frohlich** who until June 30 was on duty with the United States Army Medical Research Laboratory in Fort Knox, Ky., has been appointed a Clinical Investigator with the Veterans Administration Research Hospital in Chicago, Ill. Dr. Frohlich will also serve in the Departments of Medicine and Physiology of the Northwestern University School of Medicine. A former intern and medical resident at the Georgetown University Medical Center, Dr. Frohlich's research interests are currently concerned with hypertension and

# Deaths

vascular physiology. He lives at 333 E. Huron St., Chicago, Ill.

**Neil C. Henderson** has been named Chief of the Department of Pediatrics at the Holy Cross Hospital, Fort Lauderdale, Fla. Dr. Henderson's address is 780 Northwest 44th St. in Fort Lauderdale.

## Class of 1957

**Captain Fred H. Mehlhop**, now on active duty with the United States Army, has been selected for a first-year residency training program in pediatrics at the Walter Reed General Hospital. Dr. Mehlhop will begin his training on September 1, 1962.

## Class of 1959

**Fred D. Brown** of Miami, Fla., has completed a two-year residency in Pediatrics and will now go on active duty in the United States Air Force at 823 Medical Corp., S.A.C., at Homestead Air Force Base, Homestead, Fla. Capt. Brown invites members of his class to call when in the vicinity of Homestead Air Force Base.

**Capt. Donald E. Courts**, a United States Air Force Flight Surgeon, was a member of the rescue crew credited with saving a lost hunter's life after he had been without food, water, or medicine for several days. Capt. Courts was recently awarded the "Winged S" medal given by the Sikorsky Aircraft Corporation, for his participation in the helicopter rescue of a diabetic hunter who became lost in the Maine woods.

## P & S 1887

**Emmert C. Stuart** of Winchester, Va., died December 10, 1961. Dr. Stuart was 96.

## B. M. C. 1896

**De Vilo O. Todd** of 16th St., Virginia Beach, Va., died December 18, 1961, at the age of 89.

## B. M. C. 1898

**Evan L. Jones** of Philipsburg, Pa., died January 31, 1959.

## P & S 1901

**Andrew B. Vanderbeek** of 174 Broadway, Paterson, N. J., died on January 3, 1962, aged 90.

## Class of 1901

**Guy Walter Latimer** of Hyattsville, Md., died December 21, 1961.

## B. M. C. 1903

**Charles B. Ensor** of 7201 York Rd. in Baltimore died January 20, 1962.

## P & S 1904

**Horace G. Ripley** of Brattleboro, Vt., died recently.

## B. M. C. 1905

**Ernest Howard Gaither** of 12 E. Eager St., Baltimore, died February 21, 1962.

## P & S 1906

**George F. Johnson** of City Hall, Providence, R. I., died recently.

## B. M. C. 1906

**Samuel Miller Allerton** of Port Crane, N. Y., died recently.

## B. M. C. 1907

**Dominick A. Di Pasca** of 24 Tailor Lane, Levittown, N. Y., died recently.

**B. M. C. 1908**

**Lloyd D. Mottram** of 317 Hackberry Ave., Modesto, Calif., died recently.

**B. M. C. 1909**

**Morris L. Yubas**, Philadelphia ophthalmologist, died on April 20, 1962, at his home, 250 S. 17th St., in Philadelphia. Dr. Yubas was one of the founders of what is now the Pennsylvania College of Optometry.

**Class of 1909**

**Claude C. Smink** of 914 Riverside Drive, Salisbury, Md., died April 15, 1962. Dr. Smink was 74.

**B. M. C. 1910**

**Charles E. Wheltle** of 1279 Williams St., Baltimore, Md., died January 10, 1962. Dr. Wheltle was 76.

**P & S 1912**

**Ritchie A. Ireland** of 1207 Quarrier St., Charleston, W. Va., died December 14, 1961, at the age of 77.

**B. M. C. 1912**

**William R. Geraghty**, prominent Baltimore surgeon and a member of the Class of 1912, died on May 18 at St. Joseph's Hospital, where he had been Chief of the Surgical Service for many years.

A native of Baltimore and an alumnus of Loyola College, Dr. Geraghty served his internship and residency at the St. Joseph's Hospital. He was also active on the surgical staffs of the Mercy, Bon Secours, South Baltimore General, Church Home, and the St. Agnes Hospitals. From 1940 to 1955 he was Chief of Surgery at St. Joseph's.

As a member of the Army Medical Corps of the American Expeditionary Forces, Dr. Geraghty served as a commissioned officer during World War I. He was a fellow of the American College

of Surgeons and was certified by the American Board of Surgery.

**Class of 1912**

**Michael Vinciguerra** of 604 Westminster Ave., Elizabeth, N. J., died on March 26, 1962.

**P & S 1913**

**Roland Edward Wynne** of Bedford, Ind., died February 26, 1962.

**Class of 1914**

**Victor Leslie Glover** of 420 West King St., Martinsburg, W. Va., died May 4, 1962.

**B. Lee Liggett** of Mill Creek, W. Va., died December 20, 1961.

**P & S 1916**

**Manuel Pujadas Diaz** died December, 1961, of hypertensive heart disease. Dr. Diaz was 73.

**Class of 1916**

**Francisco J. Jemías Hernández**, pathologist and bacteriologist, died October 17, 1961. Dr. Hernandez was director of the laboratories of the Health Department of Puerto Rico.

**Class of 1917**

**Walter E. Maddison** of 3712 N. Proctor St., Tacoma, Wash., died December 19, 1961. Dr. Maddison was 84.

**Class of 1918**

**Crawford Avery Hart** of 850 Park Ave., New York City, died January 27, 1962.

**Class of 1921**

**Jesmond William Schilling** of 720 Sassafras St., Erie, Pa., died December 9, 1961. Dr. Schilling was 66.

**Class of 1925**

**José B. Casco**, who specialized in obstetrics, gynecology, and pediatrics, died December, 1961, aged 63.







## Dean's LETTER

### MEDICAL SCHOOL SECTION

*Dear Members of the Alumni, Students and Friends of the Medical School:*

From time to time there arise misconceptions on the role of examinations in medical education. For this reason it is desirable to discuss briefly some of the attributes of a medical student and the requirements of the medical education program.

The student of medicine must have the ability to comprehend and use the science of medicine. He must appreciate that this vast body of knowledge is constantly changing which requires studious re-evaluation of many concepts and changes in their application to disease and injury.

The student must also be able to savor the science of medicine with human understanding and appreciation of the problems of the individual patient and his reaction to his environment.

Students in Medical School with these abilities must be assisted and guided in their studies by a comprehensive medical curricula and devoted capable teachers.

The motivation of the student and his application of his abilities to the subjects studied under the guidance of his teachers determines to a large degree his accomplishments.

Accomplishments in a field of study are intangible until there is an opportunity to measure the capabilities of the student. The need for testing is evident to the student as well as the faculty and provides tangible evidence of accomplishments.

For this reason the test is as much a part of the learning process as the subject matter being studied. In addition to faculty testing of students' accomplishments, there is need for more objective testing to determine in a comparative way progress being made by the student when measured by tests designed by the combined faculties of all the Medical Schools. This type of examination has been developed by the Medical Schools of the United States through the National Board of Medical Examiners.

The University of Maryland School of Medicine uses the complete record of the medical student in determining advancement and graduation. These include daily work records, departmental quizzes and examinations, evaluation of fitness for medicine by the faculty, and the National Board of Medical Examinations at the end of the second and fourth years of medicine.

Sincerely,

WILLIAM S. STONE, M.D.

*Dean*

### **Construction of Betatron Progresses**

THE NEW betatron radiation equipment now being installed in the Department of Radiology is nearing completion.

This apparatus is approximately 15 times more powerful than the conventional cobalt therapy apparatus now being used. It will serve only in a limited capacity for certain types of deep lying tumors such as those in the bladder, lung, esophagus, and pelvis. The new apparatus will constitute a part of an addition to the hospital now under construction and costing approximately \$550,000. The new wing will be called the "Martha V. Filbert Radiation Center."

### **Hospital Announces Rehabilitation Unit**

A REHABILITATION UNIT for adult Maryland citizens suffering from handicaps has been established at the University Hospital within the Department of Preventive Medicine and Rehabilitation.

The unit was designed to meet recommendations made in 1961 to the State Planning Commission by the subcommittee on chronic illnesses headed by Dr. Allen F. Voshell. The new unit is designed to coordinate the evaluation and rehabilitation of handicapped persons throughout the state.

Although responsibility for long term chronic care cannot be assumed, the new unit for adults exceeds the scope of the Central Evaluation Clinic for Children in providing outpatient treatment in addition to evaluation and recommendations for treatment.

One of the objectives of the unit is to restore handicapped persons to independent living even though they may not be fitted for employment. Mr. Lad F. Grapski, Director of the University Hos-

pital, said, "It is hard to estimate the value to a completely bedridden person of being able to walk again, or to use a wheelchair."

This new unit headed by Dr. Paul F. Richardson, Assistant Professor and head of the Division of Physical Medicine and Rehabilitation, will be assisted by Dr. Aubrey D. Richardson, Assistant Professor of Preventive Medicine and Rehabilitation. Dr. Clara J. Fleischer, Assistant Professor of Physical Medicine and Rehabilitation, will be the physiatrist. Additional personnel will be utilized.

Services of the Rehabilitation Unit will be available to patients at the University Hospital who may afterward become patients at the unit.

Other patients will be referred from physicians throughout the State of Maryland or from health and welfare agencies.

### **Colonel Traub Appointed to Faculty**

COL. ROBERT TRAUB, MSC, has just retired as chief of the Entomology Research Branch of the U. S. Army Medical Research and Development Command in Washington, D. C., where he helped coordinate the Army program in preventive medicine. He has joined the faculty of the University of Maryland School of Medicine as Research Professor of Microbiology.

In his new position, Col. Traub, who is internationally known for his research on insects responsible for spreading malaria, scrub typhus, encephalomyelitis and other diseases, will spend about a third of his time studying infectious diseases found in such places as Pakistan, Thailand, Borneo, and New Guinea. Col. Traub will continue in close association with Charles L. Wissemann, now Profes-



# Grants

sor and head of the Department of Microbiology.

A native of New York City, Col. Traub is an alumnus of the College of the City of New York, where he was awarded the Ward Medal and the Le Cleur Award. He earned an M.S. degree from Cornell University in 1939 and a Doctor of Philosophy degree from the University of Illinois in 1947. He entered the U. S. Army in 1942 and first served as entomologist and malariologist in the China-Burma-India Theater. In addition to his assignment in Malaya, he also served as field director of the Commission on Hemorrhagic Fever in Korea and chief of the Department of Entomology at the Walter Reed Army Medical Center. Col. Traub is the author of more than 75 scientific publications. He is a member of Phi Beta Kappa and Sigma Xi.

## **Dr. Herbst Leaves Faculty**

DR. EDWARD J. HERBST, acting head of the Department of Biological Chemistry, has been appointed Professor of Biochemistry at the University of New Hampshire. Dr. Herbst assumed his new post September 1, 1962.

## **Death of Mr. Harne**

Mr. Oliver Glenn ("O.G.") Harne, who retired in 1955 after more than 35 years of service with the School of Medicine, died July 13, 1962, after a long illness. Mr. Harne was 67.

A native of Thurmont, Md., Mr. Harne joined the faculty of the School of Medicine shortly after World War I and for many years taught in the Departments of Physiology and Anatomy. For a number of years he served as Assistant to the Dean of the School of Medicine and Secretary to the medical faculty for more than 10 years.

THE PSYCHIATRIC INSTITUTE of the School of Medicine has received a five-year grant totaling \$97,200 from the National Institute of Mental Health for the purpose of training medical students in the science of human behavior.

Dr. Eugene B. Brody, Professor of Psychiatry and Director of the Institute, stated recently that the funds will be used to broaden the existing program and to seek new approaches toward a better understanding of the behavioral sciences in conjunction with medical training.

An additional grant from the National Institute of Mental Health totalling \$254,735 to be extended over a five-year period was awarded for the purpose of expanding the faculty in the department and to furnish stipends for practicing pediatricians who would desire special training in the emotional disorders and psychosomatic problems of children. The program will be conducted under the joint supervision of the Departments of Psychiatry and Pediatrics and will be under the supervision of Dr. Russell R. Monroe, Director of Graduate Training in the Institute. Dr. Frank T. Rafferty, Director of Children's Psychiatric Services, and Dr. J. Edmund Bradley, Professor and Chairman of the Department of Pediatrics, will cooperate.

DR. JOAN RASKIN of the Department of Dermatology has received a grant from the National Institute of Health for her studies on "Tissue Specific Antibodies in Dermatologic Disorders."

DR. VERNON E. KRAHL and the newly appointed Col. Robert Traub have received research career awards from the National Institutes of Health. Three

# Faculty

## NOTES

other members of the faculty, Drs. William S. Spicer, Jr., Karl H. Weaver, and Jack Raher have received research career development awards.

The purpose of the research career award program is to provide more stable career opportunities for scientists of superior potential and capability in the sciences related to health. The awards are intended to provide individuals with some measure of assured support reasonably early in their careers.

The award given Dr. Krahrl will enable him to continue his studies of the living lung by means of a window device installed in the chest walls of experimental animals.

Dr. Spicer, Associate Professor of Medicine and head of the Division for Pulmonary Diseases, will pursue studies now in progress on the effect of environmental factors such as air pollution on chronic respiratory diseases.

Dr. Weaver, Assistant Professor of Pediatrics, will continue his work on respiratory physiology in newborn and premature infants.

Dr. Raher, Research Assistant Professor of Psychiatry, will conduct an investigation of the physiological concomitants of emotion with particular reference to the hormone output of the adrenal cortex.

### GI Benefits Train 87,457 Physicians

ACCORDING to information from the Veterans Administration published by Selective Service, a total of 276,000 veterans have received training in medicine and related fields under various aspects of the GI bill. The number includes 87,457 trained in medicine and surgery.

### Department of Dermatology

DRS. HARRY M. ROBINSON, JR., JOAN RASKIN, and WILLIAM J. R. DUNSEATH collaborated in a study entitled "Topical Steroid Depot Therapy." The paper will be presented at the 1962 meeting of the Southern Medical Association. A companion exhibit will also present their study.

DRS. EUGENE S. BERESTON, WILLIAM DUNSEATH and HARRY M. ROBINSON, JR., have prepared an exhibit on "Pathogenic Fungi Found in North America" which was presented at the Twelfth International Congress of Dermatology in Washington during September, 1962. The exhibit will also appear at the Southern Medical Association meeting in Miami and later at the American Academy of Dermatology meeting in Chicago during the month of December.

DRS. FRANCIS A. ELLIS and LOUIS E. HARMON have collaborated on an exhibit concerning Dermal Pathology to be presented at the Twelfth International Congress of Dermatology meeting.

DR. HARRY M. ROBINSON, JR. is a member of the Scientific Committee of the Twelfth International Congress of Dermatology. Dr. Robinson will organize the patient presentations to be held at the University Hospital, the Johns Hopkins Hospital, and the Walter Reed General Hospital in connection with the International Congress. A clothbound text of patient protocols will be presented at these institutions. Drs. R. V. Robinson, John F. Strahan and Maurice Sullivan have collaborated with Dr. Harry M. Robinson, Jr. in this work. Dr. Rob-

inson will also preside at a round table discussion at the American Academy of Dermatology meeting in December and will present a paper entitled "Recently Developed Anti-Inflammatory Drugs."

DR. FRANCIS A. ELLIS will be a member of the histopathology panel at the American Academy of Dermatology meeting in December, 1962.

DR. DANIEL ROBERTS, who completed his training in dermatology at the University of Maryland, has been appointed instructor in dermatology. Dr. Roberts will be engaged in private practice of dermatology as an associate of Dr. R. V. Robinson.

DR. HARRY M. ROBINSON, JR., Professor of Dermatology, has been named President-Elect of the Baltimore City Medical Society.

### **Dr. Howard Raskin to Head Division of Gastroenterology**



DR. HOWARD RASKIN, member of the Class of 1949, a former medical resident at the University Hospital, has been named Head of the Division of Gastroenterology at the Department of Medicine. Dr. Raskin will assume his new

duties on November 1, 1962, coming from his post at the University of Chicago Clinic where he has served as Assistant Professor of Medicine since 1956. Dr. Raskin's work has included extensive studies on the Exfoliative Cytology of disease of the gastrointestinal tract and in the early detection of malignant lesions of the colon. He is the author of a large number of technical papers relating to this subject and has received international recognition for his original studies. He is a member of the American Gastroenterological Association, the Central Society for Clinical Research, the American Federation of Clinical Research, the Institute of Medicine of Chicago, the Intersociety Cytology Council, the Chicago Society of Internal Medicine, the American Gastroscopic Society, and the Society of the Sigma Xi.

In making the announcement, Dr. Theodore E. Woodward, Professor and Head of the Department of Medicine of the School of Medicine, announced that Dr. Raskin will replace Dr. Carl Ebeling who for many years conducted the affairs of the Division of Gastroenterology and whose contributions through this field are well known. Dr. Ebeling has entered private practice.

DR. HENRICUS G. J. M. KUYPERS, Associate Professor of Anatomy at the University of Maryland, has been named chief of the Division of Neuroanatomy at the Western Reserve University School of Medicine in Cleveland, Ohio. Dr. Kuypers has been recently named to the panel on neuroanatomy of the International Brain Research Organization whose headquarters are in Paris. Dr. Kuypers' research, dealing chiefly with cortico-bulbar connections, has been widely reported in scientific journals.

## Joseph Isaac Kemler

1884-1962



WITH THE PASSING of **Joseph Isaac Kemler**, the Medical Community mourns the loss of a dedicated physician, a scholarly gentleman, and an inspiring teacher, who for over a half century has been on the staff in a teaching capacity of the University of Maryland School of Medicine.

Dr. Kemler was born in Vilna, Russia, in 1884, and received his degree of Doctor of Medicine at the University of Maryland School of Medicine in 1907. He interned at the Sinai Hospital of Baltimore from 1907 until 1910. He then studied abroad, doing postgraduate work in Eye, Ear, Nose, and Throat in Vienna, Austria, from 1910 until 1911. He was certified in Otolaryngology by the American Board of Otolaryngology in 1925.

During his career, he was extremely active as a surgeon, teacher, and guiding light at the Baltimore Eye, Ear, Nose, and Throat Division of the Sinai Hospital of Baltimore, and until his death was a consultant in Otolaryngology at that hospital. He was also a consultant at the Mount Pleasant Tuberculosis Sanatorium where, in the pre-antibiotic days, he was extremely interested in the treatment of tuberculosis of the larynx and of the tracheobronchial tree. He was on the active staff of the Mercy Hospital from the beginning to the very last.

Prior to World War II, he was probably the first Otolaryngologist to do the fenestration of the horizontal semi-circular canals for the treatment of otosclerosis in the Baltimore area.

During World War II he devised and publicized and exhibited a new technique for surgery for carcinoma of the larynx, for which he received both national and international recognition.

In 1957 he received the Award of Merit, of the American Academy of Ophthalmology and Otolaryngology, for his long years of teaching and instructing and demonstrating to that organization in various fields of his specialty. This is a coveted recognition by a foremost national organization of topnotch specialists.

He was a member of the American Academy of Ophthalmology and Otolaryngology, a member of the American Medical Association, a member of the Southern Medical Association, and a Fellow of the American College of Surgeons, and the International College of Surgeons.

He led a full and inspiring career in the field of Ophthalmology and Otolaryngology and is survived by his wife, three daughters, three sisters, and a brother of Hartford, Connecticut.

ALAN A. WELFELD, M.D.

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## BOOK REVIEWS

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### **Textbook of Physiology and Biochemistry.**

George H. Bell, M.D., J. Norman Davidson, M.D., and Harold Scarborough, M.D. Pp. 1,117. The Williams & Wilkins Co., Baltimore, Md., 1961. \$13.50.

The combination of two basic medical sciences of such magnitude as those expressed in the title of this textbook is a challenging one for the authors and they give their reasons for this effort in comprehensiveness in the preface of the first edition: "The custom of teaching the elementary stages of physiology and biochemistry in close association has more than mere convenience to commend it, since the subject matter is so inextricably interwoven. This intimate relationship is apt to be forgotten, however, by the more advanced student if he comes to rely on one textbook dealing with biochemistry alone and another confined mainly to physiology. Our aim has therefore been to treat the two subjects as one and to indicate wherever possible their relevance to clinical problems."

The authors are uniquely qualified in their endeavor to correlate their knowledge of these two basic disciplines for Dr. Bell is a Professor of Physiology, Dr. Davidson is a Professor of Biochemistry, and Dr. Scarborough is a Professor of Medicine, and they are eminently successful in their collaboration in presenting this synthesis of mutually compatible and complementary subject material and applying it to everyday clinical usage.

WILLIAM B. WEGLICKI, M.D.

**Elementary Cardiography.** E. Noble Chamberlain, M.D., Norman Coulshed, M.D., and E. L. Rubin, M.D. Pp. 141. Printed in Great Britain by John Wright & Sons Ltd. and distributed in the U. S. by The Williams & Wilkins Co., Baltimore, Md., 1962. \$6.50.

The purpose of this text is well stated in the title, *Elementary Cardiography*, since it is devoted to the presentation of the basic techniques presently employed by clinicians in recording the various aspects of cardiac activity.

The size of this book is one of its outstanding features because the authors have been able to condense within its relatively few pages an abundance of fundamental knowledge about instrumentation in the evaluation of the functions of the heart.

The book is the product of the combined clinical experiences of three British physicians from the staff of the Royal Southern Hospital in Liverpool, England. In their own words, "This small book is addressed to Medical Students and to those Practitioners who have little time for larger works but are interested in the modern techniques employed in Cardiology." They approach their subject from four distinct but converging spheres of interest: electrocardiography, phonocardiography, cardiac catheterization. Of necessity, because of their concern for brevity, the authors have confined their efforts to a comprehensive introduction to these physical methods of mensuration of the normal and pathological status of the heart. Their efforts have resulted in a succinct but inclusive treatise on up-to-date cardiography that can serve to familiarize the beginner with the essential knowledge needed for the understanding of other more elaborate textbooks of cardiology.

WILLIAM B. WEGLICKI, M.D.

**Modern Medical Treatment.** Edited by Henry Miller, M.D. Pp. 416. The Williams & Wilkins Co., Baltimore, Md., 1962. \$7.00.

This book is the product of contributions made by 16 British physicians who describe in some detail their own methods of treating the commoner medical disorders encountered in their special fields of interest. It is edited by Dr. Henry Miller, who is a Physician in Neurology of the Royal Victoria Infirmary, who gives his reasons for the publication of this volume when he states, "it is orientated especially to the needs of the general practitioner, whom the progressive fragmentation of internal medicine may well establish as the only true general physician."

The editor makes no claims for the compre-

hensiveness of the text and emphasizes that "its scope is limited to diseases encountered in the United Kingdom." The format employed for discussing each disease entity is a practical one, for every program of therapy is preceded by a concise description of clinical manifestations of an illness, complications to be prevented, detailed bedside management of the patient's condition, and finally, the medical and surgical therapy to be considered and implemented. However, a close study of the therapeutic regimens presented by the authors makes it quite evident that the nomenclature of a small percentage of the pharmacological preparations is distinctly British, and that the American physician would encounter some difficulty in interpreting the identity of some of the drugs.

*Modern Medical Treatment* is a book that emphasizes the recent advances in the treatment of disease and limits this emphasis for the benefit of the busy general practitioner who might require such a reference text for keeping abreast of current therapy.

WILLIAM B. WEGLICKI, M.D.

**The Pharmacologic Principles of Medical Practice.** John C. Krantz, Jr., Ph.D., and C. Jelleff Carr, Ph.D. Pp. 1,498. The Williams & Wilkins Co., Baltimore, Md., 1961. \$15.00.

In the fifth edition of this familiar textbook of pharmacology, the reader is impressed by the fact that the authors deemed it appropriate to retain much of the historical flavor that characterized previous editions of this book and yet have also included the most recent advances in modern pharmacology therapy. In this effort, an entirely new chapter has been written which is entitled, "Neoplastic Tissue Metabolism: The Chemotherapy of Cancer." The necessity for such a discussion is delineated by the text: "Since the end of World War II there has been a complete revolution in the attitude of the public and scientists with respect to chemotherapy of cancer. Hope and an active, positive research program on many fronts have replaced despair and a paucity of investigations in this field." Advances in diagnostic therapeutic techniques employing artificial radioactive isotopes are presented, the effects of ionizing radiation on cells are considered, and the uses of cytotoxic and antimetabolic agents are explained in a literary style

that both student and practitioner have learned to expect from previous editions.

Many of the other chapters of the text have been noticeably expanded. Several of the newer diuretic drugs have been given emphasis, and further advances in the treatment of mental illness with psychotropic agents have been outlined in some detail.

The scope of *The Pharmacologic Principles of Medical Practice* is a broad one and it combines with much facility the research work of the experimental pharmacologist and the practical clinical applications of therapeutic knowledge that are greatly appreciated by the student and practitioner of medicine.

WILLIAM B. WEGLICKI, M.D.

**Textbook of Ophthalmology.** Francis H. Adler, M.D. 7th Ed. Pp. 560, fig. 288. W. B. Saunders Co., Philadelphia, Pa. 1962.

Prior to this edition, this textbook was called "Gifford's Textbook of Ophthalmology." Although a new chapter on "Symptomatology of Eye Diseases" was added, the book remains basically the same and is intended for the medical student and general practitioner. The arrangement of the chapters has been slightly altered, some new illustrations added, and footnotes for specific references also added. Some material has been added; *i.e.* viral infections of the conjunctiva. Some of the more important advances in ophthalmology in the last several years were not mentioned; *i.e.* urea in angle-closure glaucoma, increased use of epinephrine compounds in open-angle glaucoma, alpha chymotrypsin in cataract surgery, and scleral buckling procedures in retinal detachments.

Basically, the text is a good one and remains an important tool in medical education. It covers ophthalmology well from a general viewpoint. One error caused by the change of format places pemphigus and other dermatological conditions under the general heading of "Conjunctival Glandular Form of Tularemia." Also, in the texts examined by the reviewer a number of the illustrations present in previous editions were reproduced so darkly that details previously present could no longer be seen clearly.

R. D. RICHARDS, M.D.

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## POSTGRADUATE COMMITTEE SECTION

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ELIZABETH B. CARROLL, *Executive Secretary*

Postgraduate Office: Room 201

Davidge Hall, 522 West Lombard Street, Baltimore 1, Maryland

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The following postgraduate courses will be offered by the University of Maryland School of Medicine during 1962-1963.

### **Basic Electrocardiography**

November 15-16-17, 1962, under the direction of Dr. Leonard Scherlis; limited to 30 students; fee \$60.00. The basic principles of electrocardiography and the alterations produced by the common disease processes are presented in comprehensive fashion. Each physician is given a course manual. Intensive small group drills in interpretation of provided tracings follow the lectures. Instruction is thus highly individualized.

### **Advances in Medicine**

November 29-30, 1962, will be given at the Washington County Hospital in Hagerstown under the direction of Dr. Patrick B. Storey. Fee \$20.00. This brief intensive program will be given in 4 sessions and will highlight current advances in diagnostic methods, in therapeutics, in the field of malignancy, and will include a symposium on hypertension, atherosclerosis and heart disease.

### **Neuropathology for Pathologists**

December 3rd through 8th, 1962, under the direction of Dr. John A. Wagner; limited to 12 students; fee \$125.00. Given at the practical level and including basic

neuropathology, trauma, tumors, infections, and degenerative diseases; surgical neuropathology; the neurological clinicopathological conference; and practical drill in cutting, blocking, staining, and microscopic study of provided specimens.

### **Industrial Medicine**

December 13, 1962, under the direction of Dr. Walter E. Fleischer. Fee \$10.00. Designed to be of interest to physicians, nurses, industrial hygienists, safety engineers, and plant managers.

### **Advances in Medical Science**

January 9 through March 27, 1963, on Wednesdays from 3:00 to 5:00 P.M., under the direction of Dr. Patrick B. Storey. Fee \$40.00. This course is designed for physicians who wish to review the important advances in medical science. Emphasis is placed on a basic scientific approach to an understanding of the more common clinical problems and their management.

### **Clinical Anatomy**

February 4 through May 27, 1963, each Monday afternoon and Wednesday morning, under the direction of Dr. Otto C. Brantigan. Enrollment is limited to 15 students and fee is \$150.00. This course emphasizes the practical application of Anatomy and anatomical principles in physical and x-ray diagnosis.

Anatomical knowledge is related to the use of needling in performing diagnostic procedures and in treatment. The course is directed toward both the medical man and surgeon. It is an aid in the preparation for the American Board examination.

#### **Practical Dermatology**

February 7, 1963, under the direction of Dr. Harry M. Robinson, Jr. Fee \$10.00. This will be a clinical session in which many dermatologic disorders will be seen and examined by the attending physicians, followed by presentation and discussion of the problems of diagnosis and management of each entity.

#### **Neurology**

February 14-15, 1963, under the direction of Dr. Charles Van Buskirk. Fee \$24.00. Techniques of neurologic examination, diagnosis and management will be emphasized, basically oriented to the problems encountered in the practice of medicine.

#### **Practical Gynecology**

February 21, 1963, under the direction of Dr. Edmund B. Middleton. Fee \$10.00. The practical problems encountered in

the office and clinic care of the gynecologic patient will be considered.

#### **Diabetes**

March 14, 1963, under the direction of Dr. Charles E. Shaw. Fee \$10.00. An up-to-date presentation of concepts of the diabetic syndrome, of the various insulins and oral anti-diabetic agents in use, and of some problems in clinical management of the diabetic patient.

#### **Surgical Physiology**

April 4, 1963, under the direction of Dr. Arlie R. Mansberger, Jr. Fee \$10.00. Principally concerning pre-operative and post-operative physiology, functional derangements, and the management of the clinical problems commonly presented by the surgical patient.

#### **Pediatric Seminar**

(Twelfth Annual), April 7, 1963, under the direction of Dr. J. Edmund Bradley. No registration fee. Luncheon \$2.50.

Full information on all courses may be obtained from the Office of the Postgraduate Committee, University of Maryland, School of Medicine, Baltimore 1, Maryland.





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## ALUMNI ASSOCIATION SECTION

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### President's Letter

*Dear Fellow Alumni:*

With the present and planned changes for the Baltimore campus of the University, perhaps a review of the role of the Medical Alumni to its Alma Mater is timely.

Before such a relationship is reviewed, a few comments about the Medical Alumni itself are in order. We now have 1,850 members. This is a substantial increase when compared to a few years ago. Numerically, it is a poor reflection of strength when considered from the viewpoint of the number of living graduates.

The Alumni Association must be strong and vigorous, reflecting loyalty and gratitude to the institution that each alumnus selected to work in and from which he obtained his degree. It is not pertinent to this communication whether as an individual alumnus you agree with all the policies in effect. This institution did confer upon you your degree, and made it possible for you to pursue your chosen profession.

During the past two years, several new organizations have developed in the Medical School-Hospital complex. One represents the field of Surgery—the other the field of Internal Medicine. Basically these organizations comprise residents who have trained within the environmental influence of the University. The source of membership is predominantly from the University Hospital and Mercy Hospital. A third group, representing Obstetrics-Gynecology, has been in existence for some time.

I believe that these organizations will strengthen the Medical Alumni Association and give it a needed stimulus and continuing support. These groups attract former

trainees interested in, and loyal to the University. They have the advantage of affording an opportunity to renew and strengthen friendships developed through the years of graduate training. Their meetings have been well attended.

Enthusiasm, engendered by these meetings, makes one realize the need for more enthusiasm for the Alumni Association. Their existence pin-points many weaknesses in the conventional Alumni Day exercises, as well as some of the administrative policies in effect on the Baltimore Campus.

Plans are being developed for these groups to meet jointly with the Alumni Association in 1964. The traditional June-day Medical Alumni exercises will be omitted. A two-day meeting will be held. It should prove to be a happy balance of scientific programming and social contact and relaxation. Such a meeting should prove to be a step toward effective postgraduate education in capsule form and also prove to be a worthy addition to the services that the University renders. Plans will include entertainment for the wives. Perhaps under these circumstances, enthusiasm and loyal support by vigorous Alumni will develop.

To engender enthusiasm and gain such enthusiastic support, the assistance of Administration and Faculty is imperative. This requires neither time nor money from the University authorities. It does require, however, the development of an atmosphere of hospitality and cordiality and the realization that the Baltimore Campus is a postgraduate and not an undergraduate campus. Too often alumni return to our campus and leave with the impression that they were treated perfunctorily and casually. This is not the way to develop warm friendships. Rules that may be applicable to the College Park Campus frequently create a feeling of distaste, if not repugnance, when applied to the Baltimore Campus.

The Baltimore Campus is confronted with the problem of creating an environment compatible with the mature needs of those seeking a professional education, as well as postgraduate professional education. In addition, it must strive to create an atmosphere sympathetic with the needs of its Faculty. Thus far, the environmental atmosphere leaves much to be desired.

We now have an auditorium (Health Science Auditorium) in the new Library Building. This is a real

## ALUMNI ASSOCIATION SECTION

addition to the campus, and many splendid seminars and meetings have been held there. Nevertheless, it should be recognized that an adequate auditorium is not sufficient unto itself. It has been built into and is a physical part of the Library Building. This should not be detrimental to its use. However, its continuing usage may well be predicated on an attitude of welcome and cordiality as well as the recognition that such social customs as coffee-breaks and light refreshments have become accepted throughout our country. These are particularly applicable to meeting sessions occupying an entire day. The establishment and continuation of these customs have been contested by individuals on the Baltimore Campus.

With a fine auditorium and Alumni anxious to come back and attest their loyalty, wouldn't it be a paradox to see them meet elsewhere because of such a trivialty?

The Student Union Building is a splendid facility that is adding immeasurably to a pleasant environment for students. The Alumni has contributed generously toward the purchase of many of the furnishings.

A room has been designated as an Alumni Room. The Board of Directors of the Medical Alumni Association has a dinner meeting in the Student Union once monthly. Various Faculty groups entertain distinguished out-of-town speakers at luncheon or dinner. University policy dictates no social hour, prior to these occasions. This excludes the possibility of a pleasant and relaxing social experience so conducive to an exchange of information and appraisal of one's efforts.

Several groups have found the experience so sterile and unrewarding that they now meet in downtown hotels. I am sure that other groups will follow. This, indeed, will be most unfortunate and certainly something not to be desired. Such departing groups leave with a feeling of chagrin and a definite feeling of lack of sympathy and friendliness toward the University.

The University authorities should and must help the Alumni and Faculty by re-appraising these and similar problems. Expansion and rebuilding causes many dislocations of service and restlessness. Perhaps by treating the Baltimore Campus from the mature level of mature individuals, public relations for both the University and its Alumni Association will be enhanced.

Sincerely,

GEORGE H. YEAGER, M.D.

### **Detailed Class News Reports Solicited**

Elsewhere in this edition of the BULLETIN a more or less detailed account of the Class of 1960 has been compiled by the class secretary, Herbert H. James. While it is manifestly impossible to publish a detailed account of everyone every year, such class summaries are most useful in maintaining class organization continuity and spirit. The compilation of annual news notes on those classes now away from Greene Street certainly aids in the work of the Medical Alumni Association and contributes to a stronger and more effective medical alumni group. Those classes desiring to organize an annual class note or circular letter will find the BULLETIN most cooperative. The BULLETIN will be very pleased to publish such notes in detail so that they

can be distributed through the mailing list of the BULLETIN and also serve as a permanent record. Unfortunately personal notes relating to family activity cannot be carried as space permits only professional data.

### **Class of 1937 Enriches Student Loan Fund**

AT ITS REUNION this year, the members of the Class of 1937 collected and delivered to the Alumni Association a check in the amount of \$300 to be applied to the Student Loan Fund.

Dr. Parke Scarborough, class president, and Dr. J. E. Muse, Jr., Treasurer, were instrumental in espousing the cause of the Loan Fund and getting the message across with the substantial donation which will serve a continuing and repeatedly useful purpose.

### **To All Fellow Alumni of the University of Maryland Medical School Who Will Attend the Southern Medical Association Convention in Miami**

The University of Maryland Medical Alumni Association has planned a reunion to be held at the Roney Plaza on Tuesday, November 13. Cocktails will be served beginning at 6:30 p.m. followed by a buffet supper.

Jim Vaughn has made the arrangements and those of you who attended the reunion in 1957 will remember the wonderful time had by all. We do not plan any long speeches. This will be an opportunity to renew old acquaintances and make new ones.

The cost for cocktails and buffet will be \$8.50 per person. Checks may be made payable to Dr. Robert Ensor and sent to him at the following address: Dr. Robert Ensor, 621 Hastings Road, Towson 4, Maryland.

Sincerely,

RAYMOND C. V. ROBINSON, M.D.  
Councilor from Maryland

## MEDICAL ALUMNI ASSOCIATION OF THE UNIVERSITY OF MARYLAND

*President Morris and Members of the  
Alumni Association:*

For several years the Directors of the Alumni Association have been endeavoring to place the Association in a sound and favorable position. For too long a time, the organization has followed a financially unsatisfactory course without accumulation of funds beyond current needs and too frequently in a deficit status. This policy, or lack of policy, restricted the activities and potentialities of this large and steadily growing organization. This unsatisfactory situation has been overcome by modestly raising the dues, by placing a moratorium on some of the otherwise very worthy expenditures, and by carefully budgeting all available funds.

Questions have been raised concerning the reason for accumulating funds beyond immediate needs. Those who have been intimately associated with the administrative and functional activities of the Alumni Association can advance a great many answers to these questions.

The records of graduates, as many of you know, have been quite incomplete. It is anticipated that a record in some detail will henceforth be kept of each graduate and that insofar as possible a file will be obtained for all past graduates. Such an endeavor necessitates facilities and assistance. Our present quarters are inadequate. Additional space and equipment are mandatory for increased function.

In addition to adequate funds for contingencies and function, a greater scope

of Alumni activity is anticipated. Increased assistance to students is an important function of the Alumni Association and an increase in available funds will facilitate this program.

During the fiscal year ending April 30, 1962, receipts deposited totaled \$21,066.43. At the end of the fiscal year for 1961 there was a balance of \$5,004.22, making a total of \$26,070.65.

Disbursements from the Alumni Fund were \$10,296.03. Total disbursements for support of the BULLETIN amounted to \$5,242.56, with a total disbursement of \$15,538.59.

Deposited funds as of April 30, 1962 amounted to \$11,605.55 and of this amount \$524.44 is credited to the BULLETIN Fund. Funds credited to the Student Loan Fund were \$1,073.49. The unencumbered Alumni Fund balance at the end of the fiscal year was \$10,007.62. This amount compares most favorably with the balance of funds on May 1, 1961, of \$4,064.22.

The University of Maryland Alumni Association is in a sound financial position. We anticipate a growing membership, a continued sound fiscal policy, and additional voluntary support is requested that the Association may continue its increasing scope of effectiveness.

It is indeed a pleasure to present this favorable report before the Association.

Respectfully submitted,

HOWARD B. MAYS, M.D.

June 7, 1962

*Treasurer*

## Summary of Receipts Deposited and Expenditure

### Balance May 1, 1961:

Bulletin Fund .....	\$ 940.00	
Alumni Fund .....	4,064.22	
Total .....		\$ 5,004.22

### Receipts Deposited:

Alumni Fund:		
Dues .....	\$12,005.00	
Banquet .....	2,746.50	
Overpayments:		
Dues .....	\$ 97.00	
Banquet .....	27.50	124.50
Class of 1936 .....		922.75
AMA Luncheon .....		202.50
Interest .....		238.18
Total Alumni Fund .....	\$16,239.43	
Bulletin Fund .....	4,827.00	
Total Receipts Deposited .....		21,066.43
Total Cash Accounted for:		
Alumni Fund .....	\$20,303.65	
Bulletin Fund .....	5,767.00	
Total .....		26,070.65

### Expenditures:

Alumni Fund:	
Salaries .....	\$ 3,549.99
Special payments:	
Clerical Assistance .....	15.00
Honorarium .....	500.00
Social Security Taxes .....	109.89
Overpayment of withholding taxes:	
Overpayment of Federal Taxes \$61.61	
Less Underpayment of State	
Taxes .....	6.00      55.61
Banquet .....	3,604.84
Equipment—Typewriter .....	201.91
Printing and Office Supplies .....	800.25
Postage .....	574.05
Meetings, Refreshments, etc. ....	189.75
A.M.A. Luncheon .....	286.20

# For The Fiscal Year Ending April 30, 1962

Photographs .....	35.00
Travel .....	78.33
Addressograph plates .....	19.12
Gold Key .....	19.06
Repairs—Office equipment .....	29.05
Auditing fee .....	75.00
Refunds—Dues and banquet .....	124.50
Miscellaneous .....	28.48

Total Disbursements—Alumni Fund .....	\$10,296.03
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## Bulletin Fund:

Honorarium .....	\$ 1,000.00
Bulletin Account .....	4,203.00
Refunds—Subscriptions .....	24.00
Addressograph—Expense .....	5.56
Postage .....	10.00

Total Disbursements Bulletin Fund .....	5,242.56
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Total Disbursements .....	15,538.59
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Balance, April 30, 1962:

Bulletin Fund .....	\$ 524.44
Alumni Fund .....	10,007.62
Total .....	<u>\$10,532.06</u>

## RECONCILIATION OF FUND BALANCE WITH CASH BALANCE APRIL 30, 1962

Cash Balance:

Petty Cash on hand .....	\$ 25.00
Checking Account .....	4,356.10
Savings Account—Eutaw Savings Bank (also Student Loan Fund—Balto. Fed., \$1,023.49) .....	6,249.01
Total .....	<u>\$10,630.11</u>

Fees—Withholding taxes for April—Due Federal  
and State Governments:

Federal Withholding .....	\$ 74.40
Social Security .....	12.64
State Withholding .....	11.01

Fund Balance per Statement .....	<u>\$10,532.06</u>
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Registering for Alumni Day '62, right, Dr. Goldstein, standing rear, Dr. Mullan.



Dr. B. W. Fassett, Class of 1898.



Dr. Frank K. Morris, Dr. Arturo R. Casilli, and Dean Stone.

## CAMERA VIEWS ALUMNI WEEK 1962



Dr. Boyd Wylie and Dr. George H. Yeager.



Class of 1917: Drs. Fisher, Haas, Jernigan, Mansberger, and Gold.

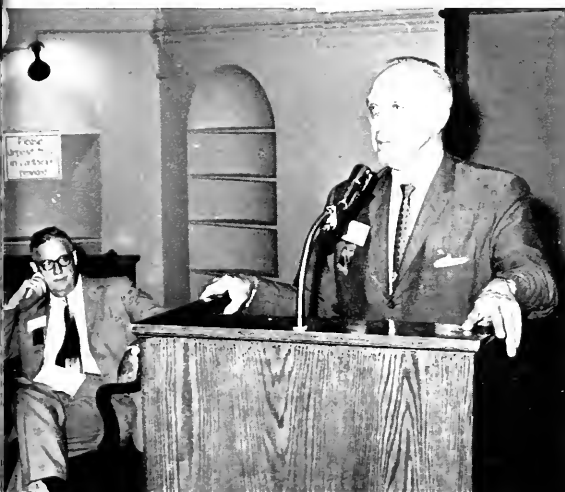




Class of 1917: Dr. & Mrs. Clark, Dr. & Mrs. Wheeler, Dr. & Mrs. Wolford, Drs. Krause, MacGregor, Porterfield, Bohl, Lasher, Ogden, and Reitzel.



Class of 1912: Drs. Biffar, Brown, Goldstein, Janer, Kohler, Mendeloff, Roberts, Swartz, Sullivan, and Vinicombe.



Dean Stone at microphone and Dr. Frank K. Morris, seated.



Group of Alumni outside Dean's office.

Class of 1937: Drs. Seegar, Kaplan, Bereston, Kaltreider, Resnick, Hedrick, Coughlan, Pavlotos, Long, Daily, Piccolo, and Scarborough.



October, 1962

# Alumni Day 1962

THE FOLLOWING MEMBERS of the Alumni Association attended the annual meeting:

## Class of 1897

L. N. Glenn

## Class of 1898

B. W. Fassett

## Class of 1909

Harry M. Robinson, Sr.

## Class of 1910

John G. Runkel Maurice E. Shamer

## Class of 1911

John F. Slogan William H. Triplett

## P & S 1912

Harry M. Biffar	M. I. Mendeloff
Joseph S. Brown	S. J. Roberts
Albert E. Goldstein	L. O. Schwartz
Manuel Janer	Les J. Sullivan
George A. Kohler	Harry W. Vinicombe

## B.M.C. 1912

H. Boyd Wylie

## Class of 1912 U. of M.

Robert E. Abell	Ernest Wm. Frey
Robert A. Bonner	Benjamin Newhouse
Charles Peter Clautice	John A. Skladowsky
Harry Deibel	D. J. Stallworth

## Class of 1913

Leonard Hays Ernest G. Marr

## Class of 1914

Arturo R. Casilli	John F. Lutz
Nolan D. C. Lewis	Austin H. Wood

## Class of 1915

William R. Johnson

## Class of 1917

Louis I. Bohl	A. W. MacGregor
Fred H. Clark	Frank N. Ogden
Louis Krause	M. H. Porterfield
D. L. A. Lasher	H. Laurence Wheeler

## Class of 1918

Thomas C. Speake

## Class of 1920

N. F. X. Banyard	William J. B. Orr
Howard M. Bubert	J. Morris Reese
L. C. Dobihal	Howard L. Tolson
Z. Vance Hooper	

## Class of 1922

Herbert Gordon	H. Melmuth
Milton C. Lang	Sternberg
Julian P. Linke	Samuel W. Sweet
Louis Noll	Aaron H. Trynin
A. R. Saporito	T. N. Wilson

## Class of 1923

George A. Knipp

## Class of 1925

J. S. Eastland	Joseph Nataro
S. S. Glick	

## Class of 1927

Joseph M. Adzima	Byruth Lenson
T. Nelson Carey	Lambros
Bernard J. Cohen	Frank R. Morris
Sol M. Donohi	Henry P. Talbot
H. W. Eliason	Claude T.
A. M. Finkelstein	Whittington
Bernard Glick	Palmer F. C.
Milton J. Goldstein	Williams
Lee C. Hummel	

## Class of 1928

Lewis P. Gundry

## Class of 1929

George H. Yeager

## Class of 1930

Kenneth L. Benfer	Nathan E. Needle
Samuel Fisher	

## Class of 1931

Arthur G. Siwinski

## Class of 1932

Herbert Berger	Arthur Karfgin
S. Daniel Blum	L. F. Klimes
David S. Clayman	Samuel Legum
J. George Diamond	R. Richard Louft
John C. Dumler	S. E. Proctor
Charles Flom	Robert Rubenstein
A. M. France	John E. Savage
Solomon E. Gittleman	Francis N. Taylor
Harold Gorenberg	Carl A. Wirts
Irvin Hantman	A. C. Sollod
Harry C. Hull	

## Class of 1934

Thurston R. Adams	John N. Snyder
Frank H. J. Figge	

## Class of 1935

E. I. Cornbrooks, Jr.	Karl F. Meck
Edward F. Cotter	H. M. Robinson, Jr.
Howard B. Mays	Paul Schonfeld

## Class of 1936

W. E. Karfgin	George P. Schmieler
---------------	---------------------

## Class of 1937

Thomas G. Abbott	E. T. Lisansky
Eugene S. Bereston	William B. Long
Robert F. Cooney	Joseph E. Muse, Jr.
Stuart G. Coughlan	August C. Pavlotos
L. E. Daily	P. A. Piccolo
Everett S. Diggs	Elton Resnick
Sigmund Goldberg	Samuel T. R.
Charles S. Hahn	Revell, Jr.
Grover C. Hedrick, Jr.	Isadore M. Robins

# ALUMNI ASSOCIATION SECTION

William C. Humphries Morris Rubin  
 Samuel Jackson C. Parke  
 D. F. Kaltreider Scarborough  
 Isadore Kaplan J. King B. E.  
 Jack A. Kapland Seegar, Jr.

## Class of 1938

Arthur V. Milholland Theodore E.  
 John A. Wagner Woodward

## Class of 1939

Henry A. Briele D. L. Reimann  
 Raymond M. Ramsay B. Thomas  
 Cunningham

## Class of 1940

James R. Karns

## Class of 1941

Raymond K. Thompson

## Class of 1942

Francis D. T. Bowen John D. Rosin  
 Frank Concilus H. H. Sadler  
 John R. Davis Wallace H. Sadowsky  
 Newland E. Day Joseph W. Scott  
 J. Howard Franz E. R. Shipley  
 Joseph C. Furnari Louis H. Shumann  
 Theodore Kardash James G. Stegmaier  
 J. Kroll Francis J.  
 Robert H. Longwell Townsend, Jr.  
 James McCosh Joseph Wallace, Jr.  
 Malcolm T. McCoogan Charles H. Williams  
 Frank S. Marino E. Andrew Zeppome  
 John J. Meli Loy M. Zimmerman  
 George R. Mullins

## Class of 1943

Elizabeth Acton Edwin H. Stewart, Jr.  
 Ruth Baldwin Irving Taylor  
 J. Emmett Queen Charles W. Trader

## Class of 1944

Donald W. Mintzer Charles E. Shaw

## Class of 1946

H. William Gray

## Class of 1947

W. W. Bindeman F. Robert Haase  
 Michael J. Coffey Calvin B. Hearne  
 Bernard S. Cohen John F. Hogan, Jr.  
 Irvin H. Cohen Lane M. Jernigan  
 William B. Cooper David E. Imbrie  
 Elizabeth Coultas Francis K. Machata  
 Irvin M. Cushner A. R. Mansberger  
 Parker S. Dorman James E. Ribet  
 R. C. Duvall J. M. Rogers  
 Donald E. Fisher Eugene Salvati  
 Robert K. Gardner Pascal D. Spino  
 Ben M. Gold Wm. H. Stenstrom  
 Louis Ward John E. Williams  
 Grossman, Jr.

## Class of 1948

F. J. Heldrich A. M. Powell, Jr.  
 Nicholas Mallis Kyle Y. Swisher, Jr.

## Class of 1950

Frank Borges Paul F. Richardson

## Class of 1952

Robert A. Douglass John O. Sharrett  
 Luis F. Gonzalez Jack Watters  
 Morton M. Krieger Donald A. Wolfel

## Class of 1953

Leonard H. Flax

## Class of 1954

Robert B. Goldstein Bernard R. Shochet  
 David A. Levy Robert E. Yim  
 Morris Rainess

## Class of 1955

Julian R. Goldberg C. Ronald Koons

## Class of 1957

Ronald Berger Mary Stang Furth  
 Harvey R. Butt, Jr. Donald W. Gauthier  
 Robert A. Carlin Paul A. Mullan  
 John V. Conway

## Class of 1959

Howard Rubenstein

## Class of 1962

Ian R. Anderson Ronald L. Klimes  
 Donald M. Barrick Edward J.  
 Raymond Bahr Koenigsberg  
 Joseph Baker Paul A. Kohlhepp  
 Donald Barrick Melvin D. Kopilnick  
 C. Gottfried Alan B. Lachman  
 Baumann Leymond W. Lott  
 Merrill I. Berman Peter S. MacMurray  
 Robert B. Bokat Peter F. Mastan  
 Kermit P. Bonovich Robert A. McCormick  
 Jack W. Bowerman Leroy L. Merring  
 Mark E. Bradley Thomas Moshang  
 Louis C. Breschi David C. Musgjerd  
 Bruce D. Broughton T. K. Orton  
 Paul Burgan Theodore C.  
 Francis J. Burke Patterson  
 Louis R. Caplan Donald Pet  
 Frank A. Carozza Verne Peterson  
 David L. Child Jordan C. Pratt  
 Alan Bernard Cohn John A. Rupke  
 David C. Cramton Allan H. Saton  
 Hammond J. Dugan George C. Schmieler  
 Fred Felser Howard A. Semer  
 Harvey S. Feuerman Michael Shefferman  
 A. Leo Franklin Gregory J.  
 Michael Friedman Sophocleus  
 Lawrence Gallagher Osmar P. Steinwald  
 Howard H. Gendason Richard Rider  
 Burton D. Stephenson  
 Goldstein Arthur W. Traum  
 Jay E. Harris Kenneth W. Tuttle  
 Irvin F. Hawkins, Jr. Ralph E. Updike  
 John Philip Haws Wm. B. Weglicki, Jr.  
 Robert A. Hoffenberg Donald Weiss  
 William T. Johnstone Edward F. Wilgis  
 Bernard Karpers, Jr. William H. Wood, Jr.  
 Mayer Katz Frank A. Zampiello  
 Stephen H. Kaufman Paul L. Zikoski  
 Stanley A. Klatsky

## Faculty Members

G. Entwisle Edward B. Truitt, Jr.  
 Allen F. Voshell

# Class

## NOTES

ELSEWHERE in this edition you will find a "tear out" page, for reporting *Alumni News* to the BULLETIN. This is not an idle gesture.

Your achievements, fellow alumnus, are of interest to your classmates. They constitute a reward to the faculty, are a challenge to the younger physicians, and are an item of prestige for the University. Please cooperate with us by forwarding news of yourself or any alumnus to the BULLETIN. Thank you.

### Class of 1910

**Rosco Drake McMillan** was recently honored by the Atlantic Coast Line Railroad on the occasion of the surgeon's 50 years of loyal service to the railroad.

Dr. McMillan was presented a gold, diamond studded emblem by President W. Thomas Rice of the Atlantic Coast Line Railway.

### Class of 1914

**Nolan D. C. Lewis**, Emeritus Professor of Psychiatry at Columbia University School of Medicine, has returned to Maryland from his former home in New York City. Dr. Lewis is living near Frederick on Route #5.

### Class of 1932

**Herbert Berger**, who serves as consultant on narcotics problems to the New York City Department of Correction, has been active in lecturing and writing on the subject of narcotics addiction. Dr. Berger has recently served as Chairman of the Committee on Alcoholism and Narcotics of the New York State Med-

ical Society. Dr. Berger lives at 7440 Amboy Rd. in Staten Island, N. Y.

### Class of 1935

**Walter H. Gerwig**, who serves as Chief Surgeon of the Department of Surgery at the Clarksburg V. A. Hospital, has been recently appointed Professor of Surgery at the West Virginia University School of Medicine and the West Virginia University Medical Center. Dr. Gerwig will continue his activities with the United States V. A. Hospital.

A native of Parkersburg, W. Va., and a graduate of the West Virginia University, Dr. Gerwig was formerly chief resident in surgery at the University Hospital. From 1940 to 1945 he served as a medical officer in the Army of the United States, attaining the rank of Lieutenant Colonel.

A Diplomate of the American Board of Surgery, Dr. Gerwig is also a member of the American College of Surgeons, the American Surgical Association, the Central Surgical Association, the Halsted Surgical Society, the Southeastern Surgical Congress and was one of the founders of the Society for Surgery of the Alimentary Tract. He is also consultant to the Walter Reed General Hospital in Washington.

Dr. Gerwig has made numerous important contributions, particularly in the field of gastrointestinal surgery and physiology. He has served as an active member of the staff of the School of Medicine of the University of Maryland and later, the George Washington University Medical School.

In a recent letter he writes, "My July 1962 issue of the BULLETIN of the School of Medicine arrived in this morning's mail. Needless to say, I always read the

BULLETIN with a great deal of interest and enjoy keeping up on the happenings of other graduates."

### Class of 1938

For members of the class, notice is given that with the coming of 1963, the Class of 1938 will celebrate its 25th Anniversary. This important event has called for preliminary plans which are being organized by Ted Woodward.

In a letter to George Yeager, Alumni Association President, Ted says, "Thank you for your letter—in which you reminded me that the Class of 1938 will have reached the 25-year milestone in June of 1963. This is shattering news!"

"I cannot speak for the entire class, but naturally we will be pleased to share in the Alumni Day Program for June, 1963. I am happy to inform you of the formation of the following committees: Reception Committee: Drs. John M. Scott, Sidney Scherlis, Edward Siegel, Celeste Woodward, Aaron Feder and John Wagner, with Drs. John Scott and Sidney Scherlis as Co-Chairmen."

A Banquet Committee consisting of Drs. Theodore and Celeste Woodward will arrange the main functions.

A Committee on Scientific Program includes Drs. Edward Siegel, Aaron Feder, and Theodore E. Woodward, with Dr. Siegel serving as Chairman.

Taking advantage of an early lead, Ted has requested the Lord Baltimore Hotel to reserve 20 rooms for the occasion.

Members of the Class of 1938 should hereby take notice, ponder, and prepare.

**John Z. Bowers** has been named National Consultant to the Surgeon General, USAF, in Internal Medicine. Dr. Bowers has recently inspected facilities at the Air Force Hospital at the Clark

Air Base in the Philippines. This inspection is a part of a year long study being conducted by Dr. Bowers in the Far East where he has been commissioned by the China Medical Board of the Rockefeller Foundation to study medical education in the Far East. Dr. Bowers' headquarters will be at the University of the Philippines in Manila.

### Class of 1943

**F. Mason Sones, Jr.**, head of the Cleveland Clinic Cardiac Laboratory, has recently received a grant of \$258,000 from the Hartford Foundation to further his work on the refinement of instruments to possibly remove fatal arterial obstructions by means of coronary catheterization.

Another goal of the program will be to develop a three-dimensional fluoroscopy and x-ray motion picture techniques to advance work already in progress related to the diagnosis of coronary occlusions and coronary insufficiency.

### Class of 1947

**Gordon R. Forrer** practices psychiatry at 20141 James Couzens Highway, Detroit, Mich.

Following his graduation in 1947, he interned at the U. S. Marine Hospital in Baltimore. Then followed two years at the Ypsilanti State Hospital and a third year of psychiatric residency at the Wayne County Mental Health Clinic in Detroit.

After a period in the U. S. Army in the capacity of instructor in psychiatry at the Medical Field Service School at Fort Sam Houston, Texas, he returned to Michigan and assumed the position of clinical director at the Northville State Hospital. Dr. Forrer has been in the

private practice of psychoanalytic psychiatry since 1960.

He is the author of over two dozen papers, one of the most recent being, "Hallucinated Headache," which appeared in *Psychosomatics*, Vol. III, March-April, 1962. Dr. Forrer is also the author of an interesting medical economics article entitled, "I Won't Change my Fees for Anyone." This interesting article, along with a recent photograph of Gordon, appeared in the Dec. 4, 1961, *Medical Economics*.

#### Class of 1948

**Merle S. Scherr**, allergist of Charleston, W. Va., recently represented the United States at the first Inter-American Allergy Conference held in Buenos Aires, which had representatives from 20 North and South American countries.

Dr. Scherr presented several papers and in addition presented a West Virginia State Flag and greetings from the Governor.

#### Class of 1950

**Jerome J. Collier** has announced the association of Dr. Malcolm S. Druskin in the practice of medicine. Dr. Collier's offices are located at 2217 South Road, Baltimore.

#### Class of 1952

**Ursula T. Slager** has published her first book entitled *Space Medicine*, published during the month of August by Prentice-Hall, Inc.

Dr. Slager is associate pathologist at the Orange County General Hospital and is also Assistant Professor of Pathology at the University of Southern California, School of Medicine.

The textbook, which is primarily intended as an introduction to space medicine, serves as a valuable source of

information for the engineer, practicing physician, or college student receiving his indoctrination into the mysteries of the Space Age.

#### Class of 1953

**Leonard B. Glick**, who has been on an expedition in New Guinea for the past two years, will return to the graduate school of the University of Pennsylvania, where he will complete his requirements for the Doctor of Philosophy degree in Anthropology.

Dr. Glick and his wife have been in New Guinea for the past two years on a research project which was sponsored by the National Institute of Mental Health. His studies have been of a medical-anthropological nature and have concerned a community of primitive people near Goroka, New Guinea.

#### Class of 1954

**Anthony A. Bernardo** has announced the opening of his office for the practice of general surgery, at 602 East Joppa Rd., Towson, Md.

#### Class of 1955

**James M. Close** has been recently promoted to the rank of Major in the Medical Corps of the United States Army. Dr. Close is assigned to the Second General Hospital in Landstuhl, Germany.

**John P. McGowan** recently completed his residency in pathology at the USPHS Hospital in New York City and has returned to Baltimore where he is presently deputy chief of the pathology service at the United States Public Health Service Hospital.

#### Class of 1956

**Richard Feingold**, who completed his residency in urology at the Presby-

terian University Hospital in Pittsburgh, has entered the private practice of urology at 5936 Phillips Ave. in Pittsburgh, Pa.

#### Class of 1957

**James P. Laster** has returned from a period of residency training in neurology at the National Hospital for Neurologic Diseases in London and is at present serving a residency in neurology at the University of Washington School of Medicine in Seattle.

#### Class of 1958

**Michael D. Potash** has announced the opening of his office for the practice of psychiatry, in the Latrobe Building, 2 E. Read St., Baltimore, Md.

#### Class of 1959

**Fred D. Brown** has completed a two-year residency in pediatrics. Dr. Brown will now be serving in the U. S. Air Force at the 823rd Medical Corps, S.A.C. Homestead A.F.B., Homestead, Fla.

#### Class of 1960

**Herbert H. James**, of 6222 52nd St., N.E., Seattle, Wash., writes, "I have noticed that the Alumni Office has not corrected my address. It has occurred to me that this same error may be repeated for other members of my class. Consequently, I have a proposition.

"I am the corresponding secreatry for my class. In this capacity I publish a news letter concerning activities of class members along with all known present addresses.

"I have enclosed a copy of the most recent news letter. I feel many of these addresses will be new to you. I am in hopes that you may be in possession of the correct address for some of those

failing to correspond with me. This will help you build your Alumni Association.

"If you are agreeable to this, please reply by return mail those correct addresses. In future publications I will send you a notice card similar to those sent class members if you can provide me pertinent information of alumni interest for publication."

The BULLETIN with pleasure prints this with minor omissions, the professional portion of Dr. James' letter and news notes.

"I am a little tardy getting the letter out—but as I had suspected the letters in response to my notice card were somewhat delayed beyond the deadline. . . .

"The draft really hit the ranks, and a good number of the fellows are now 'Sam's li'l helpers.' Almost every residency in the country has vacancies—at last it is a buyer's market. So you folks who are not happy in your present program should find open arms wherever you apply.

"The wives again sent the newsiest letters. A good number of the fellows are now in practice. I will send the few dollars raised (\$18) to the loan fund.

"Please take a moment the next time you write to give me the most recent address of those who write to you—especially if you see that I have the wrong address or have them listed in the lost soul's department.

"My suspicions have been confirmed by fellow Westerners—the East is the place to study disease. Did you know that University Hospital in Seattle is not approved for training in many residencies?

"The Alma Mater is continuing its progress by leaps and bounds. The Hecht Bldg. (Howard Hall) will be open for

classes in Feb., 1963. The enrollment will be increased to 128 next Sept. I had hoped for more specific lowdown on Department Heads, etc. of interest to all of us but did not receive it. Financial embarrassment prevented me from joining the Alumni Association this year, and anyone having an old issue of the BULLETIN please send it so I can pass on any news of mutual interest in future letters.

"Anyone who is 'sloppy' rich enough to afford a trip to the World's Fair should really plan to attend. Richard Richards is making great progress as new head of Department of Ophthalmology. Frank Rafferty from University of Utah is new head of Child Psychiatry."

**Aristides Alevizatos.** Ted has faded into oblivion.

**Lawrence Awalt.** No letter.

**John Bennett.** Office and home, 5332 Freedom St. Plans to be joined by Jim Cerda of the Class of 1961.

**Leonard Berger.** In General Practice. No letter.

**A. William Bertuch.** Living in Naples, Italy. Address: Naval Support Activity, Navy 510, Box 19, F.P.O., N. Y., N. Y.

**Herman Brecker** is in medicine at University Hospital for a year before G. P.

**Arnold Brenner** is serving a Pediatric residency at University Hospital.

**Donald Brown.** Last news is that he was in medical residency in Detroit.

**Sherrill Cheeks** served as medical resident at Johns Hopkins for one year. Then he plans to go into G. P. in Carroll County, Md.

**Jeremy V. Cooke.** No letter. Serving medical residency at Maine Medical Center, Portland.

**Donald Datlow.** No letter. Medical residency at G. W. University Hospital.

**Louis Damiano.** No letter. Served in U. S. A. for two years. Last address: Albany Hospital, Albany, N. Y.

**Paul De Vore.** In G. P. partnership in Hyattsville, Md.

**James E. Dunn, II,** is working on hypothermia at Aerospace School of Medicine at Brooks AFB, Texas.

**Straty Economon.** No letter. Dept. of Psychiatry, University Hospital, Baltimore.

**Hal Farley.** At San Joachin General Hospital. Plans to continue Radiology in East next year. Last address: San Joachin General Hospital, P. O. Box 1020, French Camp, Calif.

**Michael Fellner.** No letter. Address is 6655 Broadway, Apt. 56, Bronx, N. Y. C.

**Benjamin J. Feola.** No letter. Address is Dept. OB, Gyn., University Hospital, Baltimore, Md.

**Thomas W. Ferciot.** No letter.

**Julio Figueroa.** Serving Medical residency in Puerto Rico. Box 1197, Bayamon, P. R.

**Alvin Glass.** Residency in Physical Medicine at University of California. Address is 1563 8th Ave., San Francisco 22, Calif.

**Burton J. Goldstein.** No letter. Address is 9A Madera Ave., Coral Gables, Fla.

**I. William Grossman.** No letter. Address: 205 W. 15th St., N. Y. C. 11, N. Y.

**Franklin R. Hayden.** Started medicine residency at Socialized Medicine Hospital, Beckley, W. V., in July.

**Wilson A. Heefner.** Will be at Johns Hopkins next year in Pathology. Present



ALUMNI ASSOCIATION SECTION

address is 5831 Cabanne Ave., St. Louis 12, Mo.

**George Henning.** No letter. Last heard doing G. P. 219 Monticello Ave., Salisbury, Md.

**John Hensala.** With National Institute of Mental Health, Bethesda, Md. Travels, inspecting research for NIH.

**Jerome Herman.** No letter. Last address Sinai Hospital, Baltimore.

**Charles Hill.** In G. P., Pasadena, Md. Address: 7818 Bridge Drive, Baltimore 26, Md.

**Lawrence Honick.** In U. S. A., Qtrs. 7269-B, Ft. Carson, Colo.

**Paul E. Huffington.** Address: 3302 Baker, Dallas 2, Texas.

**Herbert H. James.** Surgical residency at Swedish Hospital. Address: 6222 52nd N. E., Seattle 5, Wash.

**Charles Kesmodel.** In Pediatric residency at Johns Hopkins. No letter.

**Ronald Keyser.** Taking Pediatrics residency at St. Agnes, affiliating at University. Address: 4016 Woodridge Rd., Baltimore 29, Md.

**James King.** No letter. At University Hospital on Ent. Residency.

**Joseph W. Kurad.** No letter. Surgery residency at Duke. Last address: Box 2961, Duke Univ. Med. School, Durham, N. C.

**Philip LaMastra.** In Service—Address mail: c/o Dr. C. Howell, 1005 Cloverlea Rd., Ruxton 4, Md.

**Cleatis Laney.** No letter. Last address: 7123 Sycamore Ave., Tacoma Park, Md.

**William Latimer.** No letter. Last address: King County Hosp., Brooklyn 3, N. Y.

**Richard Lavy.** In Pediatrics residency at Mercy Hospital, Baltimore. Ad-

dress: 3813 Oakford Ave., Baltimore 15, Md.

**Michael Leakan.** No letter. Back at University Hospital.

**Walker Lesky.** Serving Pediatrics residency at St. Agnes Hospital, Baltimore.

**Herbert Martello.** No letter. Serving Peds. and Med. residency at St. Agnes.

**John J. Messina.** U. S. Navy. No address.

**Paul Meyer.** No letter. In Neurosurgery at University Hospital.

**Damon Mills.** No letter. Address is Boston Naval Shipyard, Boston, Mass.

**John Morton.** Flight surgeon at Pensacola Air Station. Address: 224 Julia Drive, Skyline, Milton, Fla.

**Allen Myers.** No letter. In medical residency at University Hospital, Ann Arbor, Mich.

**Jerrold Normanly.** Serving Pediatrics residency at University of California. Address: 1217B Turk, San Francisco 15, Calif.

**Fortune Odend'hal.** Medical residency and additional 3 months of O. B. getting ready for G. P. Address: 390 Fernwood Drive, Akron 20, Ohio.

**Selvin Passen.** No letter. Address: Dept. Pathology, University Hospital, Baltimore.

**Morton Rapoport.** No letter.

**Jerome Reed.** No letter.

**Neil A. Robinson.** No news.

**Clinton L. Rogers.** U. S. A. Last address: 116 Center St., Keyser, W. Va.

**Jerome Ross.** No letter. Address: 3680 Forrest Hill Rd., Baltimore 7, Md.

**Jerry Salan.** No letter. Last at University Hospital, Baltimore.

**Robert Sarni.** No news. Address: 1200 Reservoir Ave., Cranston, R. I.

**Elijah Saunders.** Medical residency at University Hospital. Last address: 3002 N. Hilton St., Baltimore 16, Md.

**Bruce Saville.** No letter. Medical residency at Presb. St. Lukes, Chicago, 1753 W. Congress Pky., Chicago 12, Ill.

**Jonas A. Shulman.** Will be fellow in Infectious diseases. Medical residency at University of Washington. Address: 3204 W. Concord Way, Seattle, Wash.

**Bernice Sigman.** No letter. Pediatrics residency at University Hospital.

**Emanuel Silverstein.** Medical officer at Ft. Holabird, Baltimore. Address: 6120 Green Meadow Pkwy., Baltimore 9, Md.

**Gabor Simor.** No news. Address: 1509 E. Wilson Ave., Glendale 6, Md.

**Charles P. Smith.** Taking residency at Akron General. Address: 538 Hawkins, Akron 13, Ohio.

**George I. Smith.** G. P. residency at University Hospital.

**Mort E. Smith.** Ophthalmology residency at Barnes, St. Louis, Mo.

**J. W. E. Standiford.** Radiology residency at University Hospital. Address: 719 N. Charles St., Baltimore 1, Md.

**Martha Stauffer.** No letter. Address: c/o Malloy Institute of Pathology, Boston City Hospital, Boston 18, Mass.

**Nathan Stofberg.** No letter. In Radiology at University Hospital.

**John R. Stram.** U. S. Marines. Address: 9117 Fernwood Rd., Bethesda 14, Md.

**Merrill Syphus.** No news. Address: 100 Congress St., Pasadena 2, Calif.

**Michael Tenner.** In Radiology at University Hospital. Address: 420 Rogers Ave., Glen Burnie, Md.

**Theodore Toulan.** No letter.

**Harold R. Tritch.** In G. P. in Hagerstown, Md. Address: 302 N. Potomac St., Hagerstown, Md.

**Charles Volcjak.** U. S. N. Address: 547 Sea Crest Ave., Niantic, Conn.

**John W. Wallace.** Anesthesia Residency at Providence Hospital. Address: 3204 W. Concord Way, Seattle, Wash.

**Frank Washington.** No letter. Last address: 3500 Fairview Ave., Baltimore 16, Md.

**Donald Young.** Residency in child psychiatry at Stanford. Address: 35 Stonepoint Pl., San Mateo, Calif.

**Herbert R. White.** No letter. Last address: 205 S. Haven Ave., Salisbury, Md.

**James Yates.** No letter.

**Lois Young.** In Ophthalmology at Freedmen's Hospital, Washington, D. C.

**Edwin Zalis.** No letter. Medical residency at Letterman Army Hospital. Last address: 2214 28th Ave., San Francisco.

**Theodore Zanker.** No letter. Last at Lenox Hill Hosp., 111 E. 76th St., New York 21, N. Y.

#### Class of 1961

**Gerald C. Kempthorne** has established his practice in Spring Green, Wisc. Dr. Kempthorne may be reached at P. O. Box 4, Spring Green, Wisc.

Dr. Merle S. Scherr, Allergist of Charleston, W. Va., presents the West Virginia State Flag and a letter of greetings from Governor Cecil H. Underwood to Dr. Risieri Frondizi, Rector of the University of Buenos Aires, Argentina. Dr. Scherr represented the United States at the First Inter-American Allergy Conference which had representatives from 20 North and South American countries.

# Deaths

## Class of 1881

**Joseph Elwood Willetts** of Los Angeles, Calif., died on November 27, 1961. Dr. Willetts was 110.

## P & S 1891

**William S. Foster** of 36 Boyden Pkwy., Maplewood, N. J., died on March 28, 1962. Dr. Foster was 94.

## P & S 1895

**John C. Morfit** of 7112 Wydown Blvd., St. Louis 5, Mo., died on March 3, 1962. Dr. Morfit was 87.

## B. M. C. 1898

**Nathan E. Wells** of Newcastle, Wyoming, died on March 12, 1962, aged 85. In 1959, Dr. Wells was named "Physician of the Year" for the State of Wyoming.

## B. M. C. 1901

**William W. Scarborough** of West Farmington, Trumbull Co., Ohio, died recently.

## Class of 1901

**Benjamin H. Dorsey**, Rear Admiral U. S. N. (ret'd), of 3500 Newark St., Washington 16, D. C., died on March 17, 1962. Dr. Dorsey was 83.

**Robert F. Morrison** died at his home, 403 Pleasant St., Holyoke, Mass., on March 16, 1962. Dr. Morrison was 84.

**Edward Dawson Weems** of Berkeley Springs, W. Va., died recently.

## P & S 1904

**Lancelot Ely** of Somerville, N. J., died on April 15, 1962. Dr. Ely was 86.

## B. M. C. 1905

**Saverio Agnelli** of 632 Underhill Ave., New York City, died recently.

## B. M. C. 1906

**William Paul Dailey** of 19 Walnut St., Steelton, Pa., died recently.

## P & S 1906

**Cecil Vernon Smith** of Lewisporte, Newfoundland, died recently.

## Class of 1907

**Joseph I. Kemler**, of 701 Lake Drive, Baltimore, Md., died on June 2, 1962. Dr. Kemler's obituary appears in the School of Medicine Section.

## P & S 1908

**Thomas F. Scanlan** of Providence, R. I., died on February 14, 1962. Dr. Scanlan was 84.

## P & S 1909

**James B. Dodrill** of Webster Springs, W. Va., died on June 15, 1962. Dr. Dodrill was 82.

**John H. Weller** of State Farm, Mass., died in June, 1962.

## B. M. C. 1909

**Morris L. Yubas**, 250 S. 17th St., Philadelphia 3, Pa., died on April 29, 1962.

## Class of 1909

**George Eli Bennett**, internationally known orthopedic surgeon and emeritus adjunct professor of orthopedic surgery at the Johns Hopkins Hospital, died on July 17, 1962, at his home in Baltimore. Dr. Bennett was 77. Stricken by a heart attack shortly following supper, Dr. Bennett died within the hour.

A native of Claryville, N. Y., Dr. Bennett had practiced orthopedic surgery in Baltimore for more than 50 years following his graduation from the Univer-

sity of Maryland School of Medicine. It was in 1914 that he joined the faculty of the Johns Hopkins School of Medicine and through successive promotions ultimately became adjunct professor of orthopedic surgery, a post he held from 1931 until 1947 when he retired from his academic duties. Dr. Bennett was known for his interest in the injuries resulting from baseball and had among his patients a number of prominent professionals.

Dr. Bennett served as President of both the American Orthopedic Association and the American Academy of Orthopedic Surgeons. In addition, he was president of the Maryland League for Crippled Children and Medical Director of the Children's Hospital School. Under his direction the first "iron lung" center in the world was organized at the Children's Hospital during the early '40's. Dr. Bennett was honored by many academic and professional organizations, among which was the University of Maryland which in 1951 conferred upon him an honorary degree, Doctor of Science. In addition, Dr. Bennett received the annual alumni reward and gold key as an outstanding alumnus and for outstanding contributions to medicine. In 1953, he also received an honorary degree from Hampden-Sydney College and was the recipient of an award from the late Queen Mother Mary of England.

**William Walter Kettle** of 2313 N. E. Alameda Drive, Portland 12, Ore., died Feb. 20, 1962. Dr. Kettle was 78.

#### B. M. C. 1910

**George A. Arhart** of Amelia Court House, Va., died on March 29, 1962. Dr. Arhart was 83.

#### P & S 1910

**Benjamin L. Naiman** of 3220 17th

St., N. W., Washington 10, D. C., died recently.

#### P & S 1911

**Robert E. S. Kelley** of 157 Warren St., Waltham, Mass., died August 15, 1962.

#### B. M. C. 1912

**Andres Montalvo-Guenard** of 107 Parque St., Santurce, Puerto Rico, died recently.

#### P & S 1912

**Edward C. Bennett** of Ukiah, Calif., died recently.

**Benjamin H. Long** of 149 Lincoln Way West, Chambersburg, Pa., died May 31, 1962.

#### Class of 1912

**Michael Vinciguerra** of 604 Westminster Ave., Elizabeth, N. J., died on March 26, 1962.

A native of Italy, Dr. Vinciguerra served his internship at the Elizabeth General Hospital, Elizabeth, N. J., and later did postgraduate work at the New York Psychiatric Institute in New York City. For many years he practiced psychiatry in Elizabeth, N. J. Dr. Vinciguerra was a Fellow of the American College of Physicians, a Life Fellow of the New York Academy of Medicine, a member of the American Psychiatric Association, the American Academy of Neurology, the New York Neurological Society, and the Association for Research in Nervous and Mental Diseases. At one time he was President of the Union County Medical Society. He was also a member of the Staff of the Bonnie Burn Sanitarium, Scotch Plains, N. J., the Elizabeth General Hospital, Elizabeth, N. J., the St. Elizabeth Hospital, the New York Post Graduate School and

## ALUMNI ASSOCIATION SECTION

Hospital, and the Columbia University Post Graduate Medical School. He was a consultant to a number of other institutions. During World War I, he served as a First Lieutenant in the Medical Corps of the United States Army.

### P & S 1913

**William B. Schapiro** of 3335 Clarks Lane, Baltimore 15, Md., died on February 24, 1962. Dr. Schapiro was 71.

### Class of 1913

**Nathaniel Jay Gould**, of 940 Grand Concourse, New York City 56, N. Y., died March 11, 1962. Dr. Gould was 70.

**Fernando H. Janer** died on April 6, 1962, in Puerto Rico. Dr. Janer had been active in the Public Health Service of the Puerto Rican Government from 1931 until his retirement in 1952.

### Class of 1915

**John Daniel Robinson** of Wallace, N. C., died June 1, 1962. Dr. Robinson was 75.

### Class of 1919

**Francisco Francheschi-Caballero** of 413 San Francisco St., San Juan, Puerto Rico, died recently.

### Class of 1922

**John Edward Payne** of Arlington, Va., died recently.

### Class of 1924

**D. A. Fields** of Nanticoke, Md., died recently.

### Class of 1927

**Hyman Belsky** of 605 East Lincoln Ave., Mt. Vernon, N. Y., died March 31, 1962. Dr. Belsky was 59.

### Class of 1929

**Robert Bernhard** of 2676 Grand

Concourse, Bronx, N. Y., died January 1, 1962. Dr. Bernhard was 59.

**Samuel T. Helms** of the Fort Howard Hospital, Baltimore, Md., died December 1, 1961. Dr. Helms was 65.

### Class of 1930

**Horace G. Strickland** of 101 N. Elm St., Greensboro, N. C., died January 25, 1962. Dr. Strickland was 56.

### Class of 1931

**Roy L. Cashwell** of Southeastern Bldg., 300 S. Main St., Greenville, S. C., died on April 6, 1962. Dr. Cashwell was 56.

### Class of 1935

**William A. Cassidy** of Monterey County Hospital, Salinas, Calif., died January 13, 1962. Dr. Cassidy was 56.

**Jesse F. Williams, Jr.** of 229 Washington Ave., Clarksburg, W. Va., died recently.

### Class of 1936

**William Andrew Parr** died at his home, 736 Edmondson Ave., Catonsville, Md., on July 28, 1962.

Dr. Parr, who was 51, was a life-long resident of Baltimore and before his graduation from the University of Maryland School of Medicine had graduated from the School of Pharmacy. After starting a Fellowship at the Johns Hopkins University School of Medicine, Dr. Parr was appointed to the Staff of the Bon Secours Hospital and the St. Agnes Hospital where he was the head of the Ear, Nose, and Throat Department. In World War II, Dr. Parr served in the Army of the United States with the rank of Major, seeing active duty in the European theater from 1943 to 1945.

**Class of 1940**

**Daniel H. Mathers**, Box 430, Sanford, Fla., died March 25, 1962.

**Jose R. Fuertes** of 1394 Feria St., Santurce, San Juan, Puerto Rico, died recently.

**Class of 1942**

**William W. Currence** of 4502 McCorkle Ave., S. W., South Charleston, W. Va., died May 6, 1962. Dr. Currence was 48.

**Class of 1944**

**José A. García García**, Professor of Obstetrics and Gynecology of the School of Medicine of the University of Puerto Rico, died November 25, 1961. Dr. García was 41.

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